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The American Journal of Clinical Medicine

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VOL. 14 FEBRUARY, 1907 NO. 2

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DEVELOPMENT WORK: A CALL FOR HELPERS

The greatest present need in Medicine is a careful study of our medicinal agents—not only of their physiological actions in the light of the "new knowledge," but also of their practical, detailed clinical applications. Every physician can participate in this study. Will you?

IN our movement for the development of scientific therapeutics we meet here with an obstacle which must be removed before further progress can be made. For years we have been engaged in searching though the literature of the world, from which we have gathered vast masses of material in regard to the active principles. These we have compared, sifted, studied and condensed into the works which have been presented to the profession by us. This work, however, has been completed, and what remains to do in this line is rather editorial in character. We go over our old work, revise, correct and improve, and make the comparatively scanty additions necessitated by new developments along this line; but this is just where our trouble begins. The developments are too few.

Along two lines there is an imperative necessity for new work. A generation has elapsed since the great workers in experimental therapeutics completed their tasks. At the time when Brunton, Ringer and Waring in England, Gubler, Liebreich, Nothnagel and Huchard in Europe, with Wood in America, laid the foundations of experimental therapeutics, our knowledge of physiology was more limited than at present. Their investigations were mainly based upon the effects of remedies on the circulation, respiration and temperature. Our knowledge of the internal secretions has been developed since that time. The whole mass of our therapeutic material should be restudied in the light of the new physiology. Few of us are prepared for such work as this, but along a still more important line there is work waiting for every practising physician. We allude here to the duty of putting to a clinical test the innumerable suggestions which our work has developed, and which are to be found in the Text-Book of Alkaloidal Therapeutics.

A recent correspondence illustrates the prevalent misapprehension in regard to this work: It is our custom to scan the periodic medical literature, and when we see an article which indicates the qualification of the writer for good work, we write and endeavor to enlist his interest in this movement. Recently we wrote to a gentleman, whose paper as printed seemed to us to show ability above the usual order. He replied, expressing his willingness to prepare a paper for our journal, if we could supply him the literature from which to

select his material. We wrote to him that that was exactly what we would not do.

In the great city, where one has access to libraries and medical journals unlimited, compilation can be done with facilities no country physician can command. We have done a good deal of such work ourselves, and, while it is necessary and useful, what we are after is work of a much higher class. We want original observations and reasoning based thereon. Now, here is just where another misconception comes in:

Talking over this matter with a bright western physician in our office today, he remarked that he would "keep his eyes open for some interesting cases" and try to do what we suggested. There again we had to object. We don't want interesting cases; we don't want curiosities, that no mortal man ever saw before or ever will see again. Our esteemed contemporaries, the medical, surgical and special "museums," are gorged with such cases, and we all know how soporific is their perusal.

The cases that interest us most are those that come most frequently before the greatest number of physicians—and then most opportunely to point our moral the doctor remarked that he had a cold in the head; further, that there wasn't anything that gave him more trouble than that same miserable malady. We explained to him then what we wanted particularly to know about this disease. As a working theory we set it down as due to autotoxemia. The body is full of toxins, largely absorbed into the blood from the bowels. Usually the eliminating organs keep down the quantity to a point at which the protective forces of the body are able to take care of them. But let elimination by the skin be checked by exposure to cold; or let the toxin mass be increased by an extra large supply of meat foods; and the balance inclines to the toxins, whose effects are immediately manifested at the point of lowest vital resistance. If this is in the nasal tract the patient says he has caught cold.

We find, therefore, that one person cures colds by giving a brisk cathartic, like castor oil, or by gorging the blood-vessels and flushing the body with enormous draughts of hot or cold beverages. Another produces a huge excretion by a sweat of pilocarpine. Another sends the blood to the surface for its more complete oxidation, by giving atropine. Still another corrects the vasomotor disturbance by the use of the defervescent alkaloids. All these cure their cases—that is, some of them, not all. We ought to be able to tell beforehand which of these remedies is the best for each individual, but can we? Or is there one treatment which is sufficiently general in its application to cure all forms and cases? We are, you will see, led right up to the brink of a solution of this question, and there we stop. It is up to the clinician.

Doctor, we want you to take the cases that come to you today. We want you to examine those cases, just as you always do—to prescribe for them the remedies which you believe will restore your patients to health, and we want you to put down on your records what abnormal conditions you saw in these patients, what you believed would cure, and whether your treatment did cure them. If not, tell us why the treatment failed.

We don't want you to wait for interesting cases. If you who read this journal will respond in anything like sufficient numbers, you will relieve us of a work we could not possibly do ourselves, and which nobody but you could possibly do at all. The principles on which this work is based are very simple: First, have a clear idea as to what you see before you, that is out of order; don't wait for a name diagnosis, but simply recognize the fact that the patient does, that he has pain, fever, weakness, or something else which he oughtn't to have. Next, have a clear idea of what remedy will relieve him, and give this remedy. Third, keep giving it until you have obtained the effect you are after, or until it is evident that you have made a mistake. Fourth, keep a record of this work.

We wish we could get our readers thoroughly enthused concerning this work —a work which we believe has within it the

power of revolutionizing medicine, and one which must eventually be done. Why should *we* not do it? Let us commence today.

DRUGGISTS AND THE PHARMACOPEIA: AN EXPLANATION

Our first editorial in the November issue of CLINICAL MEDICINE entitled, "Good or Bad Drugs—Which are you Getting?" has stirred up a good deal of discussion, especially in the pharmaceutical press. While the correctness of the editorial as a whole was not questioned, one portion of it was severely criticized. That portion is not our own, but was a quotation from a letter of one of our correspondents. Our correspondent stated that he visited twenty drugstores, not one of which possessed a copy of the Pharmacopeia. He also expressed his "belief" that the latest revision of the Pharmacopeia would not be found in five drugstores in Greater New York.

We had no grounds for doubting our correspondent's credibility, but the correctness of those statements was seriously called in question. Dr. William J. Robinson, of New York, in a personal letter to us, and the *American Druggist* and *Druggists Circular* editorially, pointed out the fact that it is one of the rules of the New York State Board of Pharmacy not to register any drugstore that did not possess the latest revision of the Pharmacopeia or Dispensatory embodying its text. Dr. Robinson also pointed out that the druggist must make declaration under oath that he possesses the latest U. S. P. (or Dispensatory) and that no man would be likely to perjure himself for the sake of $2.50. The criticisms seemed to be just, but as we believe in exactness, in definiteness, in making absolutely sure, we decided to make sure.

In the interests of fair play we appointed a personal representative, who in company with our correspondent who made the original charge against the druggists of New York, visited a large number of drugstores in New York and Brooklyn, and, in justice to the druggists of Greater New York, we are glad to state that every single drugstore visited, without a solitary exception, had either the latest Pharmacopeia, or the latest Dispensatory (the National Standard) or both.

Whether the condition was different, and how different, several months previously, when our correspondent made his investigation, we have no positive means of determining.

Our correspondent's information and belief were apparently incorrect and did the New York druggists an injustice. We take this means of making as full reparation as possible and we print the explanation in as prominent a place as we gave to the editorial which stirred up such a discussion.

Fair play all the time and a square deal to everybody has always been our motto.

A constant struggle, a ceaseless battle to bring success from inhospitable surroundings, is the price of all great achievements.—Success.

ENGLAND DISCOVERS INTESTINAL ANTISEPSIS

In *The Practitioner* for December is a paper on "Recent Work on Typhoid Fever," by Claude B. Ker, Medical Superintendent, Edinburgh City Hospital, from which we quote the following:

"Antiseptics in typhoid fever find a champion in Landers (*Medical Record*, June 2, 1906), who has been accustomed to use the sulphocarbolates of lime, sodium and zinc with good effect. He finds that they deodorize the stools, and lessen the toxic symptoms; and I understand him to suggest that they shorten the duration of the fever. I have had no personal experience of the sulphocarbolates in typhoid fever, although I have employed them without success in scarlatina; but after a prolonged trial of different antiseptics, I found none which shortened the course of the disease. Still, I feel that Landers is taking a perfectly sound position when he says that antiseptics should not be condemned because they do not work miracles. Those of us who believe that something

may be done to cleanse a filthy intestine, do not necessarily claim that we are curing typhoid fever by a specific remedy, and I have no sympathy with those writers who condemn antiseptics in an offhand manner because they fail to prevent the occurrence of death or of hemorrhage. Landers also believes in augmenting leucocytosis by the administration of nuclein, and considers that, by an increase of phagocytic activity, the bacilli and their toxins are more readily dealt with after they invade the tissues. As regards diet he is content to say 'that the patient should have a diet which he can handle and appropriate,' a dictum which we commend to practitioners who prescribe the same diet to all their patients on cast-iron principles. His main object is to clean and keep clean the *primæ viæ*. He concludes, optimistically, that treatment on these lines 'will supplant the hopelessness of nihilism, and lift the Cimmerian clouds of pessimistic despair, and give the cheering, hope-inspiring sunshine of optimism, portending the more auspicious, gratifying, confident therapeutics, which we ardently and fervently hope may ultimately prevail.

"It may be noted that the text of the above paper of Landers' is the plea of Ewart (*Brit. Med. Journal*, December 9, 1905) for the 'clean bowel.' I have already elsewhere (*Ed. Med. Journal*, July, 1906) discussed this paper at length. Suffice it to say that Ewart's object is to prescribe a diet which leaves little or no residuum in the bowel, and, at the same time, to secure an antiseptic action by small doses of calomel, by the administration of charcoal, and by the use of liquid paraffin. There is doubtless so much unnecessary absorption of septic, as apart from toxic, material from the bowel of typhoid patients, that it is hard to resist the conclusion that treatment on these lines is both logical and likely to be successful."

It is refreshing to read this, and to feel that there is in one part of the world at least a set of physicians who are not deterred by unworthy considerations from frankly expressing their approval of matters which they believe to be of true value. Contrast this with the review of therapeutics in a late American publication. The compiler carefully excludes from his work every word relating to the most progressive department of medicine, the active-principle movement. Why? We may anticipate or supply the answer: He fears he may be criticised for mentioning a remedy that has "commercial backing," unless it is imported. He fears that any mention of active principles may render him unpopular with folks who do not like these remedies or the people who most prominently advocate them. He knows nothing of this movement, having studiously avoided the sources from which he might have obtained some live information. He is therefore too ignorant of the subject to appreciate its vast importance. But—is this man doing his duty to his employers, his readers, his profession or to humanity, by thus ignoring this matter? Must we cross the seas to find men with sufficient stamina to acknowledge the truths for which we have so long contended?

Il importe de rendre a la therapeutique sa dignite, de ne plus la confondre avec la matiere medical, et de remettre en honneur la science des indications. —Bouchard.

THE ALKALOIDS: A HOMEOPATHIC VIEW

In the August number of *The Twentieth Century*, the editors discuss the alkaloids from the view-point of the homeopathist. While they approve of the use of the alkaloids by their school when there have been provings of the alkaloids themselves, they naturally object to their substitution on the assumption that they exactly replace the crude drugs. As they say: "It is probable that some symptoms in pathogenesis are produced by other ingredients of the plants." We have recognized this fact by our repeated suggestions to the homeopathists that they should re-prove their materia medica on an alkaloidal basis. No certainty, homeopathic or otherwise, can possibly be based on observations made

upon drugs, no two specimens of which contain exactly the same activities.

The editors, however, go on to object to the alkaloids as teaching homeopathists to give medicine for immediate effects. That this may be a step to allopathy we do not care to discuss, but how it could possibly be a step to polypharmacy, as *The Century* says is beyond us. The whole trend of active-principle medication is to precision—to the use of single remedies for single needs, to the cultivation in the physician of the principle that he should have a distinct idea of what he wants to do and what will do it. Polypharmacy is the deadliest enemy to active-principle medication. Whether, knowing the effects of an alkaloid, the physician chooses to administer it for a homeopathic or antipathic action, is strictly his own affair; we do not presume to dictate in such matters.

Another objection raised by the same party is that the alkaloidal granule looks so much like the homeopathic that they may be considered equally harmless, and some smart Alec may take a whole bottle at once! Well, if we stop to consider every objection that can be made to everything we want to do, we will never do anything. But we would advise our homeopathic brethren to cultivate in the minds of their patients a little more respect for their drugs than the above quotation would indicate.

The observation which does not teach the art of healing is not that of a physician; it is that of a naturalist.—Broussais.

"IS DISPENSING FOR THE PECUNIARY BENEFIT OF THE PHYSICIAN?"

This is the second question asked by Dr. Fussell, in his article upon "Dispensing versus Prescribing" in the *Journal of the American Medical Association.* His first question: "Is Dispensing for the Advantage of the Patient?" which we discussed in these columns last month, was answered by him in the negative. He comes to the same conclusion concerning the second. Let us digest his argument. It is about as follows: He admits that, in certain districts, the young physician will get patients more quickly and at first make more money by dispensing than by prescribing. But the fees obtained from this class of patients are small, and the dispensing physician rarely attends those of the best class. As he advances in years he finds himself with the same class with which he commenced practice. Moreover, one case well studied, though the fee be small, will lay a much surer foundation for future practice than many cases not studied, and attracted because the physician is cheap.

Strong, isn't it?

Now let us examine this remarkable argument, which we defy any logician to present in convincing syllogistic form. First let us broaden out a bit. This question has to do not only with the young physician just entering practice, but with all physicians. The facts are these: Thousands of men of established practice are giving up prescription writing and are turning to the dispensing of their own remedies. They have good reasons for so doing, the pecuniary one among others. Would any sane man jeopardize his future income and his position among patients of the better class, for the mere sake of immediate profit? Of course not. Nor will many young men, even under the pressure of immediate necessity, do so.

We would like to inquire where are those localities in which the young dispensing doctor, just out of college, is so overrun with patients that he hasn't time to study his cases? Where, oh where is that "Happy Valley?" Is it Philadelphia? The fact is, that Dr. Fussell is drawing upon his imagination. Dispensing has many advantages, and it appeals to many patients, but never in any instance of which we have heard has it attracted such a horde of patients to a young physician as to interfere seriously with his studies, if he is studiously inclined.

On the contrary, what the average young man needs more than anything else is cases to study. He comes out into the world of practice, his brain loaded with

facts, his head swollen with theories, but skin-poor in experience; and to round him out and make him a really competent practician he must have it, the quicker the better. Otherwise he remains a theorist and more than likely degenerates into material nonentity instead of progressing to professional success.

In our cities, at least, most young men are compelled to get this experience by frequenting dispensaries and hospitals. There is very slight danger of any young graduate getting too much of it in his own office. Every case of his own opens up a little world of fact that becomes a germ in success-getting later on. His skill as a practician depends both upon the quantity and the quality of these experiences, and also, of course, upon the use which he makes of them. So far from increase of experience being a hindrance to study, in our observation it stimulates it. Of the men we know who have succeeded, those who have done the most actual practice work have done the most studying—with their work.

There is another phase of this matter of study and dispensing which is not sufficiently emphasized, and that is the importance to the physician of studying the remedies he uses. Of no branch of medicine does the young graduate know so little as of materia medica and therapeutics. He knows next to nothing even of appearance, taste, odor, etc., of the remedies he will use, and of practical clinical pharmacology even less.

The man who dispenses must learn these things, and the administration of remedies at the bedside by any conscientious physician entails personal observation of their effects. While the prescriber is waiting for the medicine to come from the drugstore the dispenser has time, in urgent cases, to note the effect of the remedies which he has administered, their influence upon pulse, respiration, the secretions, pain—any depressing or stimulating effect, etc. He must, perforce, while studying their pharmacology, review his knowledge of physiology and pathology.

He is accumulating knowledge of the most valuable kind—*because it saves life.*

It is the realization of this fact which mainly leads men to dispense and which leads so many of the laity to prefer the dispensing doctor, *as they surely do!* The ever-ready prescription blank has an unquestionable tendency to discourage its user from studying his remedies; even their commonest physical characteristics are too often unknown to him. Too often (yes, usually!) he writes out the formula of some "favorite prescription," and nothing else being possible till the medicine arrives—goes on to the next case. Is it any wonder that such a man loses faith in medicine?

Now, viewing this subject from the pecuniary side alone, which of these two men do *you* think is the most likely to achieve success: The man who administers his medicines himself, knows them and personally studies their actions, or the man who writes the prescription for a mixture which he never sees, containing drugs of which he knows little, and of whose remedial or physiological actions in many a case he subsequently has no knowledge?

The inference is carried through Dr. Fussell's paper that dispensing men are of inferior quality. Every dispensing physician has a right to resent this insulting suggestion. The assertion is not supported by a scrap of evidence. Any fair-minded man will admit that there are many able men both among dispensers and prescribers, and that the physician's character or success are not bound up with either side. As Dr. Calvin of Fort Wayne, Indiana, said in the discussion of this paper at the Boston meeting: "As to the quality of physicians who dispense, in our county, state and national societies we do not find the men who are dispensing inferior to those who are writing prescriptions, nor do we find their results inferior." That's the experience of every man who mingles largely with physicians in different sections of the country.

Another suggestion, with which Dr. Fussell evidently is trying to impress the

younger men of the profession, is that dispensing will debar them from securing the better class of practice—that the dispensing doctor's services are only in demand among the poor. We opine that this will amuse our readers. Where is the evidence that there is prejudice against the dispensing doctor among the better class of patients? The fact is, there is none. On the contrary the shoe is on the other foot. For instance, it is a well-known fact that the popularity of the homeopathist among the "best families" is due in part to the fact that physicians of this sect supply their own remedies, as well as to the fact that these remedies are palatable and easily administered. We believe we are in a position to assert that dispensing by the physician is popular and increasing in popularity among all classes of patients. We could if desired submit proof to that effect.

As to the central point at issue in this question, the direct *financial* advantage of dispensing, we do not believe that any man who investigates the matter in a spirit of absolute candor, can escape the conclusion that it pays better than writing prescriptions in the majority of cases. We are perfectly willing to qualify this statement by admitting that there are circumstances under which the doctor may advantageously prescribe instead of dispensing. And we would add, that every physician who has a competent pharmacist in his vicinity, whether he dispenses in emergency work or not, should and will find numerous occasions to engage his services, and that he should cultivate a friendly feeling with men of this allied profession. But that it pays, both immediately and remotely, to dispense, we firmly believe, and this belief is built upon an enormous correspondence with both dispensing and prescribing doctors, who have told us of their successes and failures.

At the very meeting at which this paper was read a Massachusetts physician told us that since he had commenced dispensing the active-principle remedies, three or four years before, his income had increased $500 to $600 a year. We have scores of reports from doctors who write us that their incomes have increased from 20 to 100 per cent since they have changed from prescribing to dispensing. Let us give you an illustrative case: Some years ago a well-known physician right here in Chicago after experiencing some of the disadvantages and annoyances of prescription writing, resolved to dispense his own remedies. The year preceding his income for the year was $3,405.42. The first year of dispensing brought him in $6,192.98 and the following year $9,561.75. Now this not a rare case. Almost any physician can by inquiry among his acquaintances learn of similar instances. You needn't take our word for it—investigate for yourself!

Not only does dispensing bring a larger volume of business, by keeping patients in the physician's own hands as long as may be necessary, instead of permitting them to medicate themselves with refilled prescriptions to the druggist's enrichment, but it encourages cash business. Too many patients use their funds to pay the druggist, knowing that he *must* be paid, while they feel that the physician, being out nothing but his time and a sheet or two off the prescription blank, can await some more propitious day—which never comes, in far too many instances. Medicine is a tangible commodity, the value of which the most ignorant can appreciate.

It may be commercializing to desire to make money, but if so every physician is commercialized to some degree. And why shouldn't he be? Money is as necessary to men of our profession as to those of any other—perhaps more so than to most, because to do the best work every physician should have books, instruments, opportunities for study and improvement. To get these things, to say nothing of mere food and raiment, the doctor needs to instill a little business gumption into his work. More money from practice is not entirely a matter of larger fees. Get what is yours. Dispensing is one of the means to this end. It is honorable, helpful to both physician and patient, and only those

can or will object to it who are influenced purely by the motive of self-interest.

Doctor, dispensing pays—and not financially alone. Study this question. Read the papers by Drs. Stuver and Wilks in another portion of this issue. Go into all its ins and outs and let us hear what you think of it. What has been your experience?

We shall have more to say next month.

Every normal man has that reserve power within him, a mighty coil of force and purpose, which would enable him to make his life strong and complete, were he free to express the best and the strongest things in him, were he not fettered by some bond, physical or moral.—O. S. Marden.

PURE FOODS AND PURE DRUGS

January 1, the National pure food and drug act, passed by the last Congress, went into effect. The most stringent regulations are provided to prevent the adulteration or misbranding of food products and medicines, high standards of purity are required, and every package containing poisonous or dangerous substances, such as alcohol, opium, cocaine, chloroform, cannabis indica, acetanilid and their derivatives, must specify plainly on its label the quantity of such substance contained in it. Thank God!

It is a great act, and should do much to remove the reproach of adulteration, sophistication and impurity which has been all too justly charged against many of our American food products. The patent medicines, so many of which are simply disguised alcoholic beverages or dangerous, habit-forming drugs under aliases, are hereby forced to come into the open to have their heads smashed, as they surely will. Of greatest importance to the physician, is the fact that the remedies which he uses must hereafter be labeled *true to content* and must conform, approximately at least, to established standards of strength.

It was high time we had such an act, and it does not go a bit too far. Impelled by money-mad cupidity, unscrupulous manufacturers have flooded our drug markets with impure, weak, misbranded and otherwise dangerous drugs. The American doctor has been regarded as fair game and has been found an "easy mark." The reputation of medicine has suffered and the lives and health of thousands of patients have undoubtedly been sacrificed to this hellish greed for gain. The only pity is that legislation is impotent to reach to the bottom of this stinking pit of inefficiency and assure the dependability of every product offered for sale.

The enactment of such legislation again emphasizes the necessity for and the importance of the active-principle movement. The alkaloids and their allied principles, when dispensed in their purity, in accurate and proper dosage, can be relied upon. Through the storm of criticism they stand unscathed. As a result of this concentration of attention upon these remedial agents, which we have so long and so strenuously championed, the fallacies of standardization and the *necessity* of variability and instability of alkaloidal content in the galenic remedies must be recognized. We are climbing!

THE LAY PRESS AND PNEUMONIA

We deeply regret that in our strenuous career we are constantly being brought into apparent opposition to some section of our profession. Sometimes it is the pharmacists, at others the specialists in one or another department, but mostly it is the surgeon.

In no sense are we opposed to modern surgery, or deficient in the proper pride every American physician should take in the wonderful development that has been made in this specialty. So also as to pharmacy—we are heart and soul in accord with every advance our brethren make. But we will not stoop to the position of the sycophant who stands ready to hurrah at everything these or other men may do, or say, or be. When they deserve credit, no one is before us in giving it; when they persistently deserve censure they are going to get it from us, good and plenty.

In public estimation the surgeon is not only the head of the medical profession but he is the representative. What he says is taken as the authoritative voice of all of us. Nobody gets into the public press as he does; nothing so impresses the lay imagination as the bloody work he does. Therefore when the surgeon speaks on matters medical his dictum is received as final, and the ordinary doctor who differs is set down as merely ignorant.

Now let us diagnose the surgeon and seek to ascertain the sources of his views anent materia medica: The surgeon has won success in his chosen field in the only way possible, by concentrating on it all his forces, and shutting out the collateral branches. He was a general practician twenty years ago, but has not kept up with progress along medical lines, therefore is not aware that his knowledge of them is obsolete. He has cases brought to him by many physicians, each confessing his failure with drug treatment. By the time the surgeon has heard this tale of woe—of incapacity—a hundred times he is firmly convinced that all medical treatment of that malady is a failure, be it appendicitis, gallstone, pneumonia or typhoid fever. He sees only the failures and can scarcely be blamed for failing to recognize the exceptional nature of his own observations. So we see one man honestly contending that *all* headaches are due to eyestrain, another that *all* are caused by gross lesions along the facial nerves, another that *all* are due to ethmoid disease, a fourth that *all* are originated by gynecic maladies, and so on through the entire line of specialties.

Can any rational person question the assertion that neither the surgeon nor any other specialist is *not* the highest authority on drugs and their applications? To us it seems axiomatic.

Let us illustrate: Take the modern treatment of pneumonia. Basing our drug-applications on the known disorder of the vasomotor conditions, we use digitalin to contract dilated or paretic circulatory areas, aconitine to relax contracted or spastic areas, reinforcing the former with strychnine when asthenia is prominent and the latter with veratrine when sthenia is prominent and the elimination of the toxins is requisite. The changes in these conditions are met by changes from one to the other of the combinations. Recognizing the disastrous effect on the sick man of having toxins absorbed from the bowels circulating in his blood we clear out and disinfect the alimentary canal, with calomel, saline laxatives and the sulphocarbolate. We employ our strychnine in the form of the arsenate because we know that that metal favors the fatty degeneration and absorption of the newly formed products of the disease. This forming the dominant or standard treatment we add to it whatever may be indicated by the symptoms developing in each case. Some of us seek further to combat the infective element by saturating the patient's body with calx sulphurata, believing that no parasitic invader can live in or on the human body exhaling the odor of that drug.

The whole matter is so perfectly simple, so well based on the admitted pathology of the disease, that there can not be, and has not been, a single legitimate objection raised against it. The matter has passed the field of argument and entered that of actual trial in the clinical field. Here it becomes complicated, for this is a matter every physician must determine for himself. We do not ask any man to accept the verdict of any other man, as we would accept no other's ourselves. We have made abundant trial ourselves and are satisfied. We also have received reports from very many physicians in whose judgment we have confidence, that verify our own observations. We know we are right.

We know that the man who states that there is no medical treatment for pneumonia is mistaken, and that his assertions are based on his own ignorance. We assert that not one of the men who have in recent years made such statements ever made any fair and impartial trial of the principles we advocate and the remedies we employ. Every last one of them has

simply assumed our ignorance or mistaken judgment and made no investigation capable of verifying his or our position.

Pneumonia is again (it never stops) reaping its harvest from humanity—useful and otherwise. It carries away more, especially in our cities where the nihilistic specialist dominates, than consumption—perhaps more than consumption, smallpox and the infectious and contagious diseases combined. *It need not be so!* And that it is, is to the everlasting disgrace of those who, demanding specifics, refuse and oppose the rational physiological methods that are an overwhelming success in the hands of those who have accepted and applied them.

Die Zeiten des Nihilismus in der Klinik und des Pessimismus in der Praxis sind ueberwunden, sie liegen hinter uns.—Von Leyden.

A GREAT ENDORSEMENT

No one can appreciate the rapidity with which active-principle therapeutics is becoming popularized, who does not, like the writer, have the privilege of examining every week and month the medical periodicals of the entire country. Scarcely a journal do we take up which has not at least one paper which deals with therapeutics with a hopeful, confident spirit, markedly in contrast with the disdainful, slurring allusions thereto which prevailed only a year ago. It is scarcely necessary to add that the optimistic therapeutics to which we allude is of the active-principle variety.

Not only is this the case with the "rank and file," but we may add that these things appear in journals of the highest professional standing; and not only among the original articles, but even in the editorials. The exceptions are mainly in the special journals —in those devoted to non-medicinal therapeutics—and a few whose conservatism has congealed the life-blood in their vessels, where it may only be expected to thaw out under the blaze of the tropical noonday sun of established success. To these journals the iodides and bromides are still new remedies, still to be held on the waiting list, and not to be admitted to full membership until another century has elapsed.

As an illustration of the articles to which we refer, we quote some passages from a paper in the *British Medical Journal* of Nov. 24, entitled "Drug Fallacies," by W. E. Dixon, M.A. M.D., of Cambridge University. The whole paper is so quietly and strongly sensible, so much needed and so well-expressed, that we would like to reprint it had we the space. This, however, would be hardly fair to the journal which prints it, since there is plenty of other matter in the same issue which fully deserves attention, among which we only mention the article just before Prof. Dixon's, by Dr. F. E. Stewart, New Jersey.

In his paper Prof. Dixon says:

"This leads me to speak of the advantages of employing the pure active principles in place of galenicals wherever it is possible. Undoubtedly this change is gradually coming about. Quinine has superseded cinchona in the treatment of malaria, and morphine opium for the relief of pain; but we still employ nux vomica and belladonna instead of strychnine and atropine. We know the action of the alkaloids, we can tell their rate of absorption and gauge the exact dosage; but this is not so with the crude drugs, for even if they are standardized, the percentage of each constituent is not determined, but only total alkaloid, or the percentage of one alkaloid.

"Opium is a body which is particularly liable to vary in composition. The British Pharmacopeia directs it to be standardized at 10 per cent of morphine, but even so it varies in its action, and one sample may cause convulsions while another will immediately bring about the typical depression of the sensory nerve cells. The explanation is to be found in the presence of narcotine in varying amounts from 2 to 10 per cent. Opium obtained from Persia or India is unsuitable as a drug on account of the large quantity of narcotine which it contains. This, then, affords another reason for prescribing the pure alkaloid when a certain and definite action is required." [We grant that when a certain and definite action is

not required, the cruder preparations may be employed; but who will tell us when that is the case?—Ed.]

"In Cambridge we have already directed attention to the variability of action of the group of cardiac tonics. At the present time we have no guarantee of any kind as to their activity, and many samples we have examined have been practically worthless. This is because they cannot be standardized by any chemical means. For my part I unhesitatingly express the belief that many hundreds of patients die annually from digitalis and its allies not possessing the virtues which are required of them.

"Ergot is peculiar in that the majority of the galenicals which are sold in the ordinary retail way have little of the action characteristic of ergot. The only effective way of standardizing the drug in this case is to note its action on the mammalian blood pressure. The effect of ergot on the cock's comb is of an entirely different nature; is not brought about, we believe, by vasoconstriction, and is, therefore, not necessarily a criterion of useful activity in the drug.

"Bitters increase appetite solely by their effect on the gustatory nerve endings, and would act as well if used by gargling.

"Alkalies taken one-half hour before eating favor digestion not by increasing secretion but by inhibiting it and giving the stomach a rest.

"Neither opium nor morphine relieve pain on local application; they act solely on the nerve centers, not on the sensory ends.

"The whole of the hypophosphite administered can be recovered from the urine; there is no evidence for their reconstructive values.

"Digitalis affects the ordinary heart musculature, caffeine and aconitine the part that controls rhythm, the excitomotor area, and ultimately send the heart into fibrillary twitchings, but all drugs acting on heart muscle will, in large doses, cause delirium cordis with sudden death. Squill affects the ordinary heart muscle more than digitalis or strophanthus. The latter in equal doses is dangerous from the ease with which it causes delirium cordis. Squill is slowly absorbed and causes contraction of the coronary arteries. Apocynum is the most irritant of the heart tonics, and causes such intense inflammation of the alimentary canal, followed by diffuse ulceration, that it should not be used in medicine."

How these difficulties disappear when we employ the pure active principles in cumulative dosage. We have administered many hundreds of doses of these "active irritants" and producers of "delirium cordis", and somehow get all the benefits we desire and none of the disadvantages mentioned. Use exact agents, for exact indications, know exactly the effects to expect, and dose until these are obtained, and then quit; and the difficulties we read about do not occur.

Love the art, poor as it may be, which thou hast learned, and be content with it; and pass through the rest of life like one who has intrusted to the gods with his whole soul all that he has, making thyself neither the tyrant nor the slave of any man.—Marcus Aurelius.

VASCULAR PRESSURE

In the *Clinique* for November, Hood contributes a valuable paper on pneumonia. Treating of the effect of remedies on blood pressure he details some experiments made with several agents on animals. He found that strychnine in doses of gr. 1-60 did not perceptibly raise pressure, but gr. 1-30 raised the blood in the tube 1 1-4 to 1 3-8 inches, for nearly three hours. Doses of gr. 1-20 increased the pressure to two inches but did not prolong the effect. Digitalin Germanic, gr. 1-20, raised pressure only half an inch, but it lasted nearly six hours. Caffeine citrate, gr. 1 1-2, did not affect pressure but caffeine alkaloid raised it 3-4 inch, but only for two hours. Glonoin, gr. 1-100 to 1-50 lowered pressure 1-2 to 3-4 inch, and this was not regained for several hours. Aromatic ammonia raised pressure 1 1-2 inches, but this was sustained only 20 to 30 minutes. Whisky, 30 to 60 minims, failed to raise the pressure more than 1-4 inch, and this changed to subnormal within an hour, the pressure remaining below normal several hours.

The remarkable point in this is the length of time the relaxant effect of glonoin endured. All the remedies were administered hypodermically. Unfortunately Dr. Hood does not tell us how soon the effects were manifested.

But speak in words of living power,—
They fall like drops of scalding rain
That plashed before the burning shower
Swept o'er the cities of the plain.
—O. W. Holmes.

TROPICAL FEVERS

We have just read with appreciation a pamphlet entitled "The Proceedings of the International Medical Association of Mexico, First Annual Meeting held at Torreon, Coahuila, January 26, 1906." Most of the papers were presented by American practicians in Mexico. Some are evidently natives, or Spanish, by their names. All the papers are interesting, and the work these gentlemen are doing is creditable to them and to their parent country.

We notice especially a paper by S. H. Hodgson, on "Tropical Fevers." It is a misfortune that the text-books on medicine are all written by men residing far from the lands where these diseases are prevalent, and who never by any possibility see more than a stray case. It is therefore of inestimable value to us that we should receive reports from men like Hodgson, who reside in the thick of it, and in such a hot bed of tropical fever as Vera Cruz.

Speaking of malaria, he mentions as a few known quantities, its transmission only through the mosquito, the specific effect of quinine, and the causation of its symptoms by a toxin that can be separated from the blood and used to reproduce these symptoms in another person without the transmission of the parasite.

"Yellow fever is remarkable only for the manner in which it so successfully conceals its etiology." Transmission by the mosquito under well-settled restrictions is the only known mode of infection.

In regard to dengue, everything is questionable. He has never seen it except when yellow fever was present, and is uncertain that he has seen it then.

The Texas mode of diagnosing between these two diseases is to "flip a nickel," while on the Mississippi coast, "they call the fever dengue one year and yellow fever the next."

He takes up, then, the undetermined fever the practician constantly meets, which at first looks like malaria, dengue or any other acute fever. In the text-books the diagnosis is easy, in the sick-room not so simple. The earlier symptoms are alike in all; the sudden onset, the rapid rise of fever, history of a chill, headache and backache, nausea, vomiting and constipation.

Ten years' experience with these tropical fevers gives Dr. Hodgson the right to withhold his diagnosis. For this he relies upon the results of treatment. This commences with two or three c. c. pills, U. S. P., immediately followed by a gram of quinine, by the mouth, hypodermically or intravenously. Baths are used if the fever exceeds 41° C. Six hours later the patient is seen, and if the pills have not operated, a cold enema is given, and if this is ineffective, another dose of pills. The effervescent purges are more pleasant and preferred, if at hand. If the fever has not abated, another gram of quinine is given, and the fever kept within bounds by warm baths. The bowels are moved once or twice a day, and 3 grams of quinine given every twenty-four hours till the third day, when the diagnosis will be evident. If malarial, remissions will have occurred. If yellow fever, typical symptoms will have presented. No food is permitted during the first three days, the nourishment consisting of acid drinks and all the water desired, and the promise of a square meal "manana." "If the disease is then evidently malarial, give food and increase the quinine. Send the patient to an altitude of 3,000 feet if possible, when the fever stops within two hours after his arrival."

"If it turns out to be yellow fever, you have done all you can at any rate, and it is ten to one that he will make a rapid recovery, the only treatment being to keep

the bowels moving, the skin active, and prohibit all food for five days more."

If it is an undetermined fever, recovery will have occurred or be well under way by the third day, and the subsequent treatment is symptomatic.

In yellow fever uremia is the usual cause of death, but he doubts the diffuse nephritis that has been described. He finds cases showing 30 per cent of albumin in the urine one day, while the next day there is not a trace; and doubts so rapid a cure and reconstruction. The treatment should be aimed at eliminating the toxin. The fever following the third day is due to intestinal intoxication, easily remedied by purges and intestinal antiseptics. Relapses indicate the malarial nature of the attack.

Dr. Hodgson describes the disease as he sees it. It is up to the classifiers to assimilate such reports with their nosologies, or to rearrange the latter so as to harmonize with these reports.

COPPER IN TYPHOID FEVER

J. F. Stevens, in the *Western Medical Review*, tells of forty-three consecutive cases of typhoid fever treated by him with copper sulphate. Most of these were in a hospital at Lincoln, and all received the Widal test except where there were more than one in a family. Most cases were traced to infected milk. There was one death.

The drug treatment was by the sulphate of copper, two drops of a six per cent solution in water every two hours. The dose was halved when the stomach became intolerant, which was often the case. Cases seen early had also large colonic flushes of copper solution, five grains to the quart. Baptisia was added for bad breath. The diet was a glass of buttermilk every four hours. Soups were given in the intervals, and invariably fruit juices, especially that of tomatoes. General sponging and abdominal icebags were directed against fever. Three recrudescenes occurred, all from evident imprudences. Subnormal pulse during convalescence was attributed to the copper. This often occurs under zinc sulphocarbolate. The fatal case was a man saturated with syphilis, and death came two weeks after recovery from typhoid.

Dr. Stevens calls attention to the even course of the fever, the absence of complications, the short time before convalescence was established, and the shorter course when copper flushes were given early. He questions the toxicity of copper, of which the vegetarian takes about one milligram daily in his food. Contrast with this the action of copper as an antiseptic. One part per billion kills algae. Typhoid germs succumb to one part to 100,000 or 500,000. Sublimate is a trifle more destructive and far more toxic to man.

I do not think there is much courage or originality in giving utterance to truths that everybody knows, but which get overlaid by conventional trumpery. —O. W. Holmes.

SCOPOLAMINE-MORPHINE ANESTHESIA VS. HYOSCINE, MORPHINE, AND CACTIN COMPOUND

THE ONE OPEN FOR JUST CRITICISM, THE OTHER THUS FAR AN UNQUALIFIED SUCCESS

In Wood's paper on Scopolamine (*Am. Medicine*) some curious statistics are quoted. Dirk records 260 cases, in 231 the anesthesia being "unsatisfactory," and cautions against its use with the aged. Israel gives 332 cases, unsatisfactory in exactly 300, and adds that the method is useless in the young. Since Bakes records 200, Bonheim 70, Hartog 123, Korff 200, Ries 72, Seelig 65, and Terrier 26, without a solitary case being described as "unsatisfactory," we may apply the personal equation and conclude that the technic employed by the former was not suited to this method of anesthetizing. The cautions against the use of the method for the aged on the one hand and the young on the other, show that some notable case or two had made a decided impression on the minds of the reporters, and become so firmly fixed as to color their decisions. This is a com-

mon observation on the part of those who have to compare various consultants—each has his pet shade of spectacle glass through which he sees most things.

The whole article is a model of *a priori* reasoning, based on unproved assumptions, untried hypotheses, and partial and unscientific observations. The author objects to morphine and hyoscine on the ground that both actively depress respiration. There is a difference not recognized by him between lessening the rate and the force of respiration. Experience has shown that under hyoscine-morphine-cactin anesthesia the respirations may fall to six per minute, and capital operations be done leisurely and with security, the experienced surgeon not condescending to give a hypo of strychnine or any other respiratory stimulant. This the writer has witnessed in person, and is not a supposition.

Next, Dr. Wood says: "It (hyoscine) can hardly be claimed to increase greatly the analgesic effect of morphine." But this is precisely what it does do, as testified to by many competent clinical observers, who take the trouble to verify their conclusions before rushing them into print.

The statistics are worthless, because they relate to the use of any and every preparation of scopolamine, and not to the chemically pure alkaloid. They can assuredly be ignored as applied to the hyoscine-morphine-cactin combination of chemically pure principles. Our personal knowledge being limited to this combination, of whose purity we are sure, we look to it alone in forming our views. What some other combination of unknown make may do, we are not prepared to discuss.

When a man tells us that a single administration of scopolamine-morphine occasioned "advanced fatty degeneration" of the heart, what are we to think of his pathological views?

The column headed "unsatisfactory" included the cases where it was deemed necessary to complete the anesthesia with ether or chloroform. This means simply that the anesthetist, being inexperienced in the use of this method, became frightened at the slowing of respiration and failed to push the alkaloids to the requisite point. Such reports are common in the early history of any active drug. The author's verdict against the new method is therefore a hasty and ill-considered one, and one that we believe he will not be glad to reread a few years hence.

Assumption with insecure foundation seems to be habitual with this writer. He assumes the identity of hyoscine and scopolamine, extends this assumption to the commercial specimens found in the markets of the world, and ignores the most evident testimony of the incorrectness of this position. Turn to the last edition of Shoemaker's Materia Medica, page 545, and you may read of Hesse's investigation of these two products, and see that they differ in the contamination of scopolamine with atroscine, a powerful alkaloid of as yet undetermined properties. Its presence probably accounts for the difference in polarizing shown by different specimens of "scopolamine."

The mortality as given by Wood is surely enough to deter any surgeon from employing scopolamine as an anesthetic; but if further proof is needed that this agent is not identical with hyoscine, at least as employed with morphine and cactin, it may be found in the reports on the latter combination received by the writer. It is too soon to tabulate these reports, and we keep well within the limits when we say that over 1000 cases have been reported to us, and up to the present without a solitary death. This we attribute to the chemical purity of the alkaloids, and to the technic developed by the surgeons who have most extensively employed the method.

Whatever weight is to be allowed the statistics collected by Wood, they do not apply to the use of the combination of absolutely chemically pure hyoscine, morphine and cactin, nor is there a solitary case of its use included in these statistics. This combination is one of the happiest hits of recent times, a perfectly balanced formula, framed in accordance with the known powers of the ingredients. Such a

success would be impossible in dealing with any remedial agents but the pure active principles. As the use and study of these increase we may see many such triumphs.

A STUDY OF ASTHMA

Abrams contributes to the *Medical Fortnightly* of November 26, a beautiful study of asthma, in which he seeks by therapeutic applications of agents whose action is known to deduce the pathology. Employing adrenalin hypodermatically he found it one of the most efficient means of arresting the asthmatic paroxysm. By this agent the normal lung resonance is translated into dulness or flatness. This effect also follows when the nasal tract is treated by a spray of atropine sulphate 0.15, sodium nitrate 9.6, glycerin 2.0, distilled water 15.0, and 3 per cent of cocaine added.

He attributes the asthmatic paroxysm not only to spasm of the circular bronchial fibers but to inability of the weaker longitudinal fibers to contract the air. This comes pretty close to the recognition of paresis of these fibers, which would harmonize with our own conception of the situation. He attributes the efficacy of amyl nitrite to induction of the lung reflex of contraction, instead of its relaxation of vascular pressure. In those who suffer from asthma of nasal origin a paroxysm may be induced by stuffing the nose with cotton so as to obstruct respiration. Apomorphine and other nauseants produced emesis when applied to the nasal mucosa.

How can a man learn to know himself? Never by meditating, but by doing. Endeavor to do thy duty, and thou wilt at once know what in thee lies.—Goethe.

JOIN A GUN CLUB

The greatest remedy for the diseases of over-civilization is to be found in a temporary reversion to a primitive type of existence. There is a certain degree of rest to be obtained from a change of work. When the mental faculties have been exhausted by continuous application in a single direction until they refuse to respond to the call for further effort, we may turn with a curious sense of freshness to some other line of mental exertion. But the time comes when one is brain-weary through and through; and the effort to tackle any duty is like touching a raw sore.

By this time the digestion is ruined, the body overwhelmed by toxins, the vital functions generally in a jangle; and sleep, "tired nature's sweet restorer," has departed, and her place is taken by a kaleidoscopic jumble more exhausting than the labors of the day.

Here is where we touch the danger point. Cerebral disease with mental derangement may now ensue, or the patient may seek the ever-present momentary relief obtainable from alcohol, morphine or cocaine. The difference is momentous—the mental derangement may be postponed and the final breakdown delayed, but when either comes it is hopeless, as the forces that might have been utilized for recuperation have been called into play by the stimulants and exhausted.

It has been charged that the one object of life with us Americans is wealth, and the only God we worship is the Almighty Dollar. But there are a whole lot of us, and there is scarcely anything that can be said of us that applies to the majority of Americans, except that they *are* Americans, and mighty fine fellows. We venture to believe that there are very many who appreciate that, while success and money are good things, they are of infinitely less value than long life and good health. If you, dear reader, are not in this class you will not be interested in what follows.

I wish I could make every one of you realize the enormous benefit to be derived from a week of reversion. Get as far back as possible. Take a gun and an axe, and get into the woods with as little of the impedimenta of civilization as possible. Assimilate yourself with the most primitive of mankind whose conditions you can imitate; and the farther back you go on the

track of human development, the more complete will be the recuperation. But don't try too much at once—you would die of exposure and want under circumstances which to the Iroglodyte would be paradise. A man ought to have years of experience in roughing it before he attempts anything of the sort.

The best way to begin is by joining our gun club; it doesn't cost much—only fifty dollars membership and ten dollars annual dues. This gives you the privileges of the boat-house, to keep your material in security, and the shooting over a large body of the best duck waters in the state of Wisconsin. It is a good investment, for as population increases and game grows scarcer every year, it is constantly becoming more difficult to find good shooting outside of these protected waters. The membership consists of men with whom it is a pleasure to associate. Most of those who go to the lake in summer for the excellent fishing take their families with them. We believe that the value of these membership shares may be expected to double every five years, making them a good investment even when not used. If you are interested personally, or for a patient, write.

Half the joy of life is in little things taken on the run. Let us run if we must—even the sands do that—but let us keep our hearts young and our eyes open that nothing worth our while shall escape us. And everything is worth its while if we only grasp it and its significance.—Victor Gherbuliez.

AUTOTOXEMIA AND NEURITIS

In the *Jour. M. S. M. S.* for December, Stephenson describes a case that evidently gave him considerable trouble to classify, as he does not attempt a diagnosis by name, though it is evident he comprehended both the pathology and—rare thing—the treatment.

The patient was a sedentary meat eater, troubled long with constipation, and for ten years with "rheumatism," gradually increasing in severity. Ascribing the difficulty to defective elimination, Stephenson treated the constipation and increased cutaneous elimination, with good results. The man then attended a meeting, was chilled, the checking of perspiration led to an accumulation of toxins with a "chill," and an acute and severe exacerbation of the pains followed. These were general, and an acute coryza commenced. Full doses of morphine by hypodermic gave temporary relief, but next morning the temperature had risen to 102.3° F., and every large nerve trunk was aflame, the patient delirious with pain.

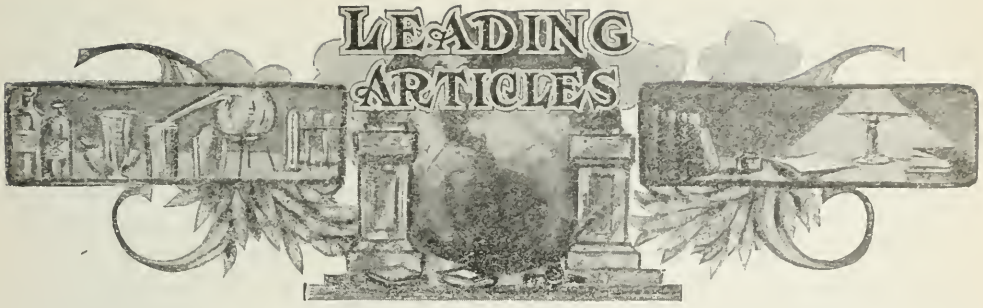
Large doses of calomel and cathartic pills were given, with relief that soon ceased, leaving the pains more insistent than before. He had not slept for thirty hours, the pulse was 120, the temperature 103.4° F. He was then given hypodermically a tablet of hyoscine, morphine and cactin, and within half an hour was asleep, which lasted six hours. There was then some pain, temperature 100.1° F., head clear, no nausea or other unsatisfactory symptoms. At 10 p. m. the injection was repeated, and a peaceful night followed. The patient was back at his office in four days.

Here we have a classic case. The accumulating toxins poisoned the nerves, a so-called multiple neuritis followed, and the pain only gave way to the powerful anesthetic combination described. Neither neuritis, autotoxemia, constipation, neuralgia, nor any other single title suffices to properly designate this case; yet the pathology and therapeutics are evident.

Some books are like grindstones—good to sharpen your wits on just because you disagree with them.—E. M. Epstein.

COUGHS AND COLDS

This is the time of the year when the busy doctor is overrun with cases of these common ailments. How do you treat them? Same old way? May we not suggest a trial of the modern (alkaloidal) method of treatment as evolved by Drs. Abbott and Waugh. Read Dr. Abbott's article on this subject in the Miscellaneous Department. We shall also be glad to heve full reports of your experiences.



DOING THINGS WORTH WHILE

Showing the greater certainty, efficiency and ease of exhibition of the active principles, with especial reference to the active principles of digitalis, jaborandi, gelsemium, etc., and other definite, concrete medicinal agents

By W. C. ABBOTT, M. D., Chicago, Illinois

IT is not at all a difficult matter for the physician possessing a reasonable knowledge of drug action to recognize the indications for the use of the more frequently employed alkaloids. He may at first be inclined to give the large doses at comparatively long intervals, not realizing the rapidity with which results may be obtained from the small dose of a positively acting remedy exhibited at short intervals to effect, remedial or physiological. Thus the man who has used digitalis in its various official forms for years will quite naturally exhibit digitalin when a case presents calling for a circulatory stimulant. A very litttle experience will prove to him that granules containing a definite and constant amount of evenly efficacious principles are infinitely preferable, as therapeutic agents, to the tinctures, fluid extracts, elixirs, etc.

Accepting alkalometric, active-principle methods does not mean the casting away of old and tried friends but rather the renewing of acquaintance with familiar weapons which have been re-tempered, re-edged and improved until they present as near to perfection as human product may attain!

The physician using the alkaloids knows that cardiac stimulation will follow the proper exhibition of digitalin. If, however, the diuretic effect of digitalis is desired it is not necessary to resort to large doses of infusion or fluid extract (containing no one knows how great a percentage of digitoxin, digitalein, digitin, digitonin, etc., hence exerting an unknown effect upon the system) but the minimum, known-to-be-effective dose of digitonin (the true diuretic principle) is given hourly to effect.

If, as often happens, it seems desirable to exhibit another heart-tonic while securing the diuretic action of digitalis, digitalin, cactin, caffeine or other indicated drugs may properly be given conjointly with the digitonin; the desired effect of each drug being secured without undesirable disturbance of the system. The practician may have a case of gastritis in which it is desirable to secure the effect of digitalis upon the circulation. The use of any alcoholic preparation is contraindicated, the inflamed and sensitive gastric mucosa refusing to accept it. Even the average dose of an infusion produces nausea. Gr. 1-67 of digitalin (guarded perhaps by a minute dose of menthol), if given with a little hot water, will be promptly absorbed and the dose repeated as necessary will, within twenty-four hours, produce the desired effect—and that effect only!

The extreme nicety of dosage can only be fully appreciated by the man who has practised both methods—the old and the

new. For instance the amount of "specimen No. 1" of digitalis necessary to favorably influence "A" may be entirely too much for "B" and not half enough for "C." Just as the doctor has regulated (by experimentation, which is far from desirable in Medicine) the dosage for each individual his supply of tincture runs out and "specimen No. 2" may be just half as efficacious or twice as potent. Once more the dosage has to be changed and he never knows it till he surmises or determines it by irregularity of action, or results of medication are not satisfactory. Is it any wonder there are therapeutic nihilists?

Again, quite probably the doctor has had good results from aconite in the fevers of childhood. If a preparation of aconite is of therapeutic use it is because of the aconitine it contains. The tincture may contain more or less. The active-principle practician eliminates all doubt and danger by using the pure amorphous alkaloid in the smallest effective therapeutic dose at short intervals till he obtains the desired result. Then he stops. Moreover he gives this important remedy when it is needed. Gr. 1-134 can be instantly dispensed from the pocket case, either entire (as a granule) or in any strength of solution desired. No waiting, no possibility of druggist's errors in dispensing over-strong or inert tincture, from variability of preparation, etc. Every undesirable feature is eliminated and the doctor is assured of the same positive aconite effect day after day, anywhere and under all conditions.

Giving Remedies at Short Intervals to Effect

The smallest effective dose of a known-to-be-active remedy, "repeated at short intervals to effect," is one of the simple rules which makes of Therapeutics a positive science. Starting with a known quantity the doctor repeats his medication till he gets results. It may take three doses, it may take ten, but, if the diagnosis has been carefully made and the right remedy selected, *definite effect must follow definite medication.* Further, remedial action will be apparent before signs of drug sufficiency present themselves. If the reverse condition obtains the physician knows that he must change his remedy. Following, as he does, a well-understood and rational method of treatment in all acute disorders, the alkaloidist will have done no harm to his patient even though aconitine has been exhibited when veratrine was indicated or the latter where gelseminine would have been preferable. Only one wrong brick, and that not a bad one, had been laid in a perfect therapeutic edifice. The bowel has been emptied and rendered clean, the mouth, nares and fauces kept free from bacteria, the skin rendered active and the blood reinforced by systemic antiseptics. So, even if the beginner in alkaloidal practice should select one wrong remedy his patient, under the general plan of treatment, will of necessity be better off than he could possibly have been under the most carefully conducted old-time medication.

The Physician Must Recognize the Underlying Conditions

The necessity for treating conditions, not disease-names, renders the physician's diagnostic sense extremely acute; and, as it is allowed that without a good diagnosis a good treatment cannot follow, his prompt recognition of the underlying pathological conditions which produce the symptoms present enables him, armed as he is with positive remedies, to do the right thing at the right time in the most rational way, resulting naturally in success.

The physician who has used the galenics and ethpharmacals for many years is likely to say: "I see the advantage of the alkaloids but I cannot at this time learn therapeutics all over again." That he *can* do so, so far as is necessary, is evidenced by the success of thousands of other men who had just the same ideas, and experience will reveal the fact that there isn't so much to "learn over" as there is to forget; and the new knowledge which is essential comes of itself, being evolved, clear-cut and unforgetable, from each day's clinical results.

The doctor, for instance, has wondered, time and time again, why one case would

do so well under pilocarpus while the next should nearly die when given the same doses. When he uses pilocarpine in small repeated doses he will see that that drug acts in precisely the same way upon every person, but that jaborine (which, like pilocarpine, is always present in variable proportions in fluid extracts of pilocarpine) has precisely the opposite effect. Hence the mystery—the cause of past failures. Jaborine might be of great therapeutic service in some cases but it never could be beneficial to the patient demanding pilocarpine effect. The intelligent exhibition of single principles makes therapeutics a positive science.

A great many men unfamiliar with the alkaloidal granule express disappointment at the so-called insolubility of some varieties. One moment's thought will serve to show them how entirely impossible it is for glucosides, resinoids and some concentrations to be soluble in water. Alkaloids are soluble and the granule will disappear speedily in hot water making a perfect solution. Glucosides, resinoids and other naturally insoluble drugs should be given *as* granules (or tablets) with a little hot water; the fluids of the stomach speedily cause their solution and absorption.

Using Combinations of Granules

When two, three or more different drugs are to be given together it is well to dispense the proper number of each for one dose in a capsule, or, if all are soluble, in definite solution. For extemporaneous dispensing simply place the proper number of each granule in separate envelopes, vials or butter-dishes and number these "No. 1," "No. 2," "No. 3", etc. Then direct one No. 1, three No. 2, and two No. 3 every three hours, or however they may be arranged. It is just "as easy as eating," Doctor, and quite often more beneficial!

You cannot make incompatible messes with the alkaloids! It is equally impossible to give your fastidious patient something "so nasty that I just couldn't swallow it." Any human being with normal deglutitionary ability can "take his medicine" at any time, anywhere (even in church) without being forced to swallow something after it to remove the taste. And, always, everywhere, the therapeutic value of the granule is identical. Failure to obtain results means faulty medication, not inactive medicine.

Ease of Giving Granules

It is easier to swallow the granules and then drink a little hot water than it is to make solutions. Moreover fluid medicines taste badly, they also spill easily and are, therefore, undesirable in many ways. Moreover few spoons are the same size and therefore doses are apt to vary. The granule and tablet is absolutely a perfect form of medication; and when made of the right material in the right way leaves nothing to be desired.

THE discovery and the preparation of chemically pure medicaments is the glory of our age,—of this century ever in quest of progress and freedom; of this century so nobly humane, which ceaselessly draws new conquests from the infinite unknown, raising every day a little more the veil which hides it, and which has learned at last that fraternity is a law divine and that the good of humanity should be the aim of that law, of science and of art.—Dr. S. Laura in "Pharmacotherapie Dosimetrique."

SHALL THE DOCTOR DISPENSE OR PRESCRIBE?

The author, who has practised medicine nearly twenty-seven years, was for two years a drug clerk, and for eighteen years was proprietor or in supervising charge of a drugstore. He has dispensed his own remedies for eight years

By E. STUVER, M. S., M. D., Ph. D., Fort Collins, Colorado

IN the December 1, 1906, issue of the *Journal of the American Medical Association*, on page 1786, is published an article on "Dispensing versus Prescribing" by Dr. M. H. Fussell, which I believe merits more than passing attention on the part of the medical profession.

While the article contains many things with which most physicians can agree, a number of the conclusions, I believe, are not warranted by the facts in the case. On the first proposition: "Is dispensing of advantage to the patient?" it is stated that "drugs which are in the office of any man who dispenses must either be in the form of pellets, pills or ready-made mixtures or powders."

This is certainly news to me, as there is no reason in the world why the dispensing physician should not have his own active principles, fluid extracts, tinctures, salts and everything that is needed in his practice, and to say that he does not know enough about this very important part of his profession to know what manufacturing pharmaceutical houses put up first-class preparations is to admit that some at least of his teachers in the medical college were derelict in their duty and sacrificed the substance to the shadow, in educating him for his life's work.

And to claim that any intelligent man with the proper kind of a medical education is not competent to put up his own medicines, unless it be some rarely used special preparation, is to acknowledge that his alma mater has failed in her duty towards him.

Dr. Fussell further claims in his paper that there is a tendency for the dispensing physician to become careless in making examinations and arriving at diagnoses. I believe this is an entirely gratuitous assumption. Thoroughness in diagnosis will depend upon the education, training, mental make-up and character of the individual physician, and the fact whether he dispenses or prescribes will have nothing to do with the matter at all. Indeed, an incompetent, lazy fellow would be more likely to prescribe than to prepare medicines, because it is easier to do.

The Physician a Fool or Knave Who Uses Inert Drugs

I think all will admit that a physician's success will ultimately depend on the kind of work he does and the results he obtains. If this be true I fail to see how he could resort to the use of inferior drugs, substitution, or the other evils to which dispensing is said to lead, without branding himself as a knave or a fool. The surgeon who should use a poor, worthless instrument that would defeat the object of his operation or possibly endanger his patient's life would not raise his standing in his community by such an act; not a whit more would a physician advance himself by the use of inert or worthless drugs in the treatment of disease. And the idea that a physician would be more likely to buy cheap and inert drugs to use on his own patients, on whose successful treatment his standing and success depend, than a druggist who has, to put it mildly, only a secondary interest in them, is entirely too transcendental for an ordinary mind to grasp. The argument as to the greater use of ready-made prescriptions and proprietary preparations by the dispensing physician is, I believe, refuted by the prescriptions on file in any large drugstore. Investigations of this matter show that a

large percentage, in some cases 50 to 70 per cent, are made up of proprietaries and other ready-made mixtures.

The Question of Expense

It is asked: "Is it cheaper for the patient for the doctor to furnish his own medicines?" From my own experience, if by that is meant, will the patient recover more promptly and thoroughly and at less expense, I would unequivocally answer, yes, because, as admitted by the writer, the doctor has the patient under better control and can see him or her at more frequent intervals provided proper management demands it. Everyone knows that a patient will continue going to the drugstore and have a prescription refilled long after the necessity for its use has ceased or even after it has become harmful. With the patient dependent on the physician for his medicines, they can be discontinued when no longer needed or changes made when indicated.

Every physician should charge the patient a full reasonable amount for services and an additional amount for medicines. In this way the bug-bear of cheap doctors will be obviated and both doctor and patient benefited. I say *patient* benefited advisedly, because everyone who has had any experience in the matter knows that the foundation for many chronic diseases is laid by the patient continuing to have a prescription refilled and to take a certain medicine long after the period of its usefulness had passed.

Nor is this haphazard, unscientific medication confined to the patients themselves, but in many cases extends to their relatives, friends or a whole neighborhood.

Prescription Peddling—An Illustrative Case

One instance of this kind observed while I was connected with the drug business forcibly illustrates the above statement. A young man brought in a prescription given by a doctor in another state, for gonorrhea. This was filled and refilled time and again for many years. Being located in a western railroad town (Rawlins, Wyo.), where this affection was very prevalent, I believe I am safe in saying that this prescription, which during my observation was used for about ten years and filled many hundreds of times, was the cause of many cases of gleet and other chronic sequelæ that could have been obviated by proper treatment by a physician. Such proper treatment would not only have cured the patient more promptly, saved him time, suffering, and in the long run money, but would have limited the spread of the disease, thereby benefiting the community and at the same time placed the treatment where it belonged, in the hands of the physician, and I trust I shall be pardoned for suggesting that it would have placed the treatment on a more scientific basis.

The Pecuniary Advantage of the Physician

The second question: "Is dispensing to the pecuniary advantage of the physician who dispenses," while a matter of secondary importance, can as far as my experience and observation go, be answered decidedly in the affirmative.

The third question, "What effect does dispensing have on the manner in which a physician conducts his cases," is a matter of the very greatest importance and should receive careful and unbiased consideration. As before stated I believe the care with which a man examines and handles his patients depends upon the man. If he is thorough, careful and conscientious, his examinations will reflect these characteristics. If he is slovenly, lazy and careless, these things will show in his work, and whether he prescribes or dispenses his medicines will make no difference.

In the actual contact with and management of disease, however, especially when the symptoms are urgent and the pain is severe, even if this be in town and not more than three to four blocks from the skilled pharmacist, the physician who has his remedies with him has an immense advantage over the one who must sit down and wait an hour or so to have his prescription filled. The former, if he has kept pace wth modern therapeutic progress, has in his pocket from forty to fifty of the

most potent, swiftly acting and certain therapeutic agents known to medical science, and in from fifteen to twenty minutes has given his patient relief, and that, too, in many instances without resorting to the much abused and greatly overworked hypodermatic injection of morphine.

Take for instance a case in which a child is suffering from a severe attack of spasmodic laryngitis or false croup. The physician who dissolves a few tablets of calcidin in a little hot water and gives a dose every five minutes until relief is obtained, which will generally follow in from fifteen to thirty minutes, will have a much better opinion of himself and will be much more likely to hold the practice of that family than the one who bustles around while waiting for the bottle of syrup of ipecac or other mixture from the drugstore, and gets a much more tardy and less satisfactory result after he does receive it.

Personally Noting the Effect of Medicine

In the one case, the physician's time is all usefully spent in noting the effects of his remedies and before the other would have received his medicine from the drugstore, he has secured results and has formed an accurate judgment as to the medicines and frequency of dosage the patient should receive during the interval before his next visit. He thus has learned something as to the patient's susceptibility as to a particular remedy and other individual characteristics so that he is in a position to formulate a more correct opinion and outline a course of treatment that will lead to the speediest possible termination of the malady.

The physician who prescribes, however, is in a very different position. If he be a busy man, so much time has already been lost before the medicine arrives that he cannot remain to note its effects on the patient. Indeed, in many cases he has taken his leave before it comes, and not being certain as to the age, quality and maybe kind of drugs with which his prescription was filled, he is necessarily uncertain as to the condition he will find his patient in on his next visit.

The physician who prescribes only enough medicines to meet present indications and exigencies does not have a lot of partly empty bottles and boxes to rise up in judgment against him at the termination of the illness, and the inevitable feeling on the part of the patient, that a considerable sum of money has been wasted. This is not a remote possibility, but a fact constantly occurring in practice.

Does Dispensing "Commercialize" the Doctor?

The argument that dispensing has a tendency to lower ideals, lead to commercialism and routine, is, I believe, largely theoretical and will apply to those who prescribe as well as to those who dispense their medicines. The man who dispenses will not be more likely to put up a favorite prescription that he has originated himself and of whose ingredients and their actions he has a tolerably clear idea, than the man who prescribes is to specify some proprietary preparation of whose constituents he may have only an indefinite knowledge and whose conception of their therapeutic action is largely derived from the fervid recommendations of the manufacturers or their oily-tongued agents.

The peculiar mental type of the physician will determine the course he will pursue. The progressive, thinking, up-to-date physician will use his reasoning powers and knowledge of materia medica to differentiate the remedy or remedies best suited to the individual case, whether he prescribes or dispenses, and the routine kind of man will pursue the opposite course regardless of which method he follows.

Purity, Quality and Strength of Medicines

In the discussion of this paper Prof. Hallberg of Chicago states that the physician knows nothing of the tests of the Pharmacopeia, and adds: "It is the prerogative of the pharmacist to identify and pass on the purity, quality and strength of medicines. The physician is neither by training, experience nor environment fitted to it."

Even admitting the truth of this statement, which I do not do, in its entirety,

when the greatest good of the patient is made the criterion by which to judge, I would like to ask the distinguished professor, what percentage of all the drugstores in the United States, taking the country as a whole, are thoroughly equipped with laboratories, machinery and appliances to make fluid extracts, solid extracts and other standard preparations and who have in their employment trained pharmacists who are experts in pharmacognosy, pharmacy and chemistry, so that they can make reliable tests of the strength, purity and efficiency of the drugs they are dispensing, and how many do so test all materials used in filling prescriptions.

And I would further like to ask how many of these skilled experts, after they get through with their arduous tasks of sounding the praises of peruna, Hostetter's bitters, Lydia Pinkham's compound, Hood's sarsaparilla, etc., and the numerous proprietary preparations with which the shelves of every drug store are loaded; or, after selling face-powders, soda-water and perchance violating the law of the municipality by selling alcoholic liquors, narcotic poisons or abortifacients, and throwing in some counter-prescribing to break the monotony, how many have any strength or inclination left to go ahead with scientific investigations into the strength, purity and efficiency of their remedies?

If there be a man of such rare physical and mental accomplishments occasionally found, the chances are that he will not long be found working in an ordinary drugstore for about $75 a month, but will soon be drawing a better salary as expert for some large pharmaceutical manufacturing firm. If, then, the ordinary druggist or pharmacist does not test his remedies to find out whether they are up to the standard of strength and purity specified by the Pharmacopeia but merely uses the preparations put upon the market by the large manufacturing pharmacists, how can he dispense any more intelligently and serve the patient to better advantage than the physician who buys the same or better preparations and puts them up himself?

Furthermore, I believe that the careful, observing physician, by accurate bedside tests with Abbott's, Parke, Davis & Co's; Squibb's, Wyeth's, and other reliable firms' preparations, does secure sufficient data on which to form fairly reliable judgments as to the efficiency of these remedies in the treatment of disease. Some of us *know* that if we desire to obtain expected results, it is necessary to use or specify the particular *make* of remedy we want used in our prescriptions. If this be true I fail to appreciate the enormous importance attached by some to the functions of the dispensing pharmacist, as the business is conducted at the present time.

Can the Physician Control the Prescription?

Prof. Hallberg further says: "Physicians should demand that a prescription shall not go out of the hands of the pharmacist, and should give instructions to the pharmacist that the prescription is not to be repeated except on special order." We most heartily agree with this, but as it is "a condition, not a theory, that confronts us" at the present time, I fear that a considerable period will have to elapse before our ideal shall be realized.

One impediment, as the professor must certainly know, to the attainment of this greatly desired result, is the fact that the courts in a number of our states have ruled that the prescription is the property of the patient. This being the case, if he asks for his prescription or a copy of it the druggist *must* give it to him. And even where the law does not compel this, business and other considerations will generally secure it.

Hence, in view of all these considerations and circumstances, and taking the greatest good of the patient as the determining factor, I believe the best way for the physician to protect himself, conserve the best interests of his patients and the community at large, is to dispense his own medicines and not have his prescriptions traveling around over the country promiscuously, and like a sharp sword in the hands of a child, likely to do more harm than good.

THE DOCTOR AND THE DRUGGIST

Are their interests mutual? Some of the reasons which have led the author to the custom of dispensing his own remedies instead of writing prescriptions

By W. O. WILKES, M. D., Waco, Texas

IT would seem that self-interest would cause the doctor and the druggist to work harmoniously together, even if there were no more weighty ethical reasons for each profession to bear in mind the interests of the other. But do the druggists carry out their part of the mutual obligation? The doctors think not. Probably the druggists have their own point of view in looking for faults, but we are chiefly interested in the doctor's side of the question now.

The charges of dereliction most commonly brought by the medical profession against the pharmacists are: First, counter-prescribing; second, unauthorized refilling of prescriptions; third, mistakes and carelessness in dispensing; fourth, substitution; fifth, recommending patent medicines. This is not all, but it is a pretty large indictment as it stands.

Counter-Prescribing in Drugstores

First, counter-prescribing. When brought to bay for counter-prescribing the druggist pleads self-preservation. He says that if he does not prescribe for the customer he will go around the corner to another druggist who will, and not only that sale is lost but possibly all future patronage of that individual. But this is no defense. Any other violation of law or morals could as easily be excused on the same plea. The real trouble is that counter-prescribing shades into legitimate sales so gradually and imperceptibly that it is difficult to draw a clean-cut line of demarcation between them, and a druggist may drift into the practice before he hardly knows it. And, like any other bad habit, when once formed it is difficult to break, and is likely to grow.

In nearly every drugstore in the country diagnoses are made and treatments prescribed for everything from tachycardia to toe-itch, from consumptions to corns, in violation of civil and moral law,—and with disastrous results in many cases to human health, happiness and even life. More gonorrhea is treated by the ten drugstores of this city than by all the seventy doctors, and nearly all the cases of cystitis, orchitis and stricture that come to us have been maltreated by drugstore practitioners. A young man came to me a few weeks ago with nearly all the epidermis burnt off the dorsum of his penis in a drugstore attempt to cure a sore that was a typical Hunterian chancre; and he was using chlorate of potash to cure his mucous patches, too, and no internal treatment.

I have a patient now who sent a dollar to a prominent druggist for something for her kidneys, and received a bottle of Warner's safe cure, instead of the advice to consult her family physician. She is now in the last stages of Bright's disease, when it is possible that early, intelligent treatment might have saved her.

Mail-Order Treatment For Cancer

A few months ago a Hillsboro doctor sent a decoy note to each of the druggists of the town, describing symptoms that any doctor would diagnose as a cancer of the womb, and asking for medicine for the cure of the symptoms, in payment for which a dollar was enclosed. Three out of the four druggists sent medicines (and no change); the fourth, to his honor be it recorded, sent back the dollar with the advice to consult a physician. What would be thought of a doctor who would give aletris cordial and an alum-water

douche for the cure of a beginning carcinoma of the uterus? The same doctor then wrote as a mother wanting something to stop her baby's diarrhea and gave symptoms that to any doctor's mind would carry conviction of a grave case of cholera infantum; and the result was the same. Only one of the druggists sent back the dollar, and advised the anxious mother to call in a physician. The others sent an abundant supply of medicine with ample directions as to use. Now, is not this a slaughter of the innocents?

The Refilling of Prescriptions

Second, unauthorized refilling of prescriptions. This brings up the mooted question of the ownership of a prescription. Doctors contend that a prescription is merely his written order to the pharmacist to prepare certain remedies, in a certain way, for this particular individual, at this particular time, and that the written order is the doctor's property solely, but may be placed on file by the druggist for his own protection. Others have said that it belongs to the patient, who bought and paid for it. He did buy the knowledge that is written on the piece of paper, it is true, but only as it applies to his own immediate needs at that particular time, and not with any idea that he might treat all his family and friends, in future, who were supposed to be similarly affected. No one, unless it be the druggist himself, can possibly uphold the idea that the druggist has any ownership whatever in the prescription, and yet any drug man will tell you that a big file of old prescriptions is a most valuable asset, as some of them are always being refilled. There are prescriptions refilled every week in this town that were written by doctors who have been in their graves for years, and written for patients who are long since dead; and the men who originally compounded them are probably dead, too, and the drugstores are in other hands. Where rests the ownership now? Why, with the man who bought the drugstore, I suppose, but that does not make it right. More than one of the so-called patent medicines that are now making princely fortunes for unprincipled fakers was originally a prescription written by some plodding village doctor with a large family to support, and his coat out at the elbow, who probably received for it a dollar's worth of "garden sass," or a "paving stone from hell."

Every time a prescription is refilled, without authority, an injustice is done the doctor, and often to the patient, as it is in this way that many drug habits are formed. The doctor, with his rampant hypodermic syringe, is rightly charged with many sins in this respect, but I venture to say that unauthorized refilling of prescriptions, and unrestricted selling of patent medicines, have produced ten "fiends" for every one caused by the doctors.

Carelessness In Filling Prescriptions

Third, mistakes and carelessness in filling prescriptions. It might be contended that the doctor is just as likely to make mistakes in dispensing as the druggist, and the prescription, passing through two hands, is checked for errors, and this is a safeguard to the patient. And this is in some measure true. Every doctor who has written many prescriptions has had mistakes called to his attention by the pharmacist, but the mistakes are nearly always clerical, and would not be likely to happen in handling labelled medicines. Furthermore, the doctor would not be likely to subject his patients to the almost criminal carelessness that an overworked and underpaid drug clerk sometimes perpetrates.

I once wrote a prescription containing acetanilid, strychnia, atropia, and quinine, and upon looking in the box next day was struck with the apparent variation in amount of medicine in the different capsules; and taking out two that seemed to be the heaviest and the lightest, I weighed them and found a difference of three and a quarter grains! Just think of it. Medicines of such potency divided so that the patient might get 50 per cent more in one dose than another.

One morning I wrote a prescription for iodide and bichloride in a syrup menstruum for one patient, and a cough syrup for an-

other, and the labels got crossed in the drug store, the bronchial patient getting the mixed treatment and the syphilitic getting the cough medicine. Neither of them ever knew the difference, but it worried me somewhat to make things work out right without giving it away.

These things could not possibly happen to a doctor in dispensing his own medicines.

The worst piece of carelessness that has ever come under my personal observation happened to me only a few months ago. I wrote a prescription for night sweats to contain in each capsule one-ninetieth grain of atropia, one-fiftieth strychnia, and five grains of bismuth, with directions to take one at bedtime and repeat once, three or four hours later, if necessary. The next day my patient complained that she had sweat worse that night than ever before, although she had taken two of the *powders*. I thought it strange that one forty-fifth of atropia had had no effect, and asked to see the box. Instead of capsules, as I had written, it was put up in powders, and, upon tasting one, there was absolutely no taste except bismuth. I know positively that they contained no strychnia, and I don't believe there was a particle of atropia in them either. I took a tablet of atropia from my hypodermic case and gave to the patient that night, and that was the last of the night sweats.

The Substitution and Patent-Medicine Evils

Fourth, substitution. I hear this mentioned often, but I think there is very little of it done in the stores of the better class. It is the proprietary manufacturer, and his traveling representative, who raises all the hue and cry about substitution, and for an interested purpose, of course. And we would all be better off, and our patients, too, if we never prescribed a proprietary preparation.

It has been my experience that druggists usually do their duty in this respect, and dispense what is ordered (making the patient pay the increased cost), if it is to be had, and telephoning the doctor if the particular make of drug specified can not be obtained.

Fifth, the recommending of patent medicines. The fool and his money are easily parted, and if not for patent medicines it will be for something else. This does not impair the doctor's income to any appreciable extent, but may, in fact, tend to increase it, in that the patent-medicine user, sooner or later, becomes somebody's patient from the mere fact of swallowing the vile stuff. The great harm in this abuse is not so much to the doctor as to the individual and the community at large. Here is where most of the drug habitues are made,—morphine, cocaine, alcohol. Most cough medicines, consumption cures and soothing syrups are merely flavored syrups of morphine. Every few weeks a coroner's jury will report the death of a child from morphine from an overdose of Dr. So and So's cough syrup. But they are not often mentioned in the newspapers, because the press of the country is bound and gagged by the patent-medicine trust, which is officially known as the "Proprietary Association of America." All patent tonics, invigorators and bitters depend largely upon alcohol for their effects. Peruna is classed by the U. S. Government as an alcoholic beverage, and its sale is forbidden in Indian reservations. Paine's celery compound is in the same category, and contains even a larger per cent of alcohol. Lydia E. Pinkham is stronger than the strongest sherry, and so on through the list. Nearly all catarrh and hay-fever powders contain cocaine. All headache remedies are almost entirely acetanilid, and the acetanilid habit is nearly as bad as the others.

Profits in the "Repeaters"

The patent-medicine men themselves are authority for the statement that the only good seller is the "repeater," that is, a medicine that, when a person has taken a bottle, the system will crave more, and all the popular patents or proprietaries are nostrums of this character. In some of the best stores in this country there are signs displayed, reading, "We keep patent medi-

cines for sale, but do not recommend them. Consult your doctor." In a very small number, no "patents" are sold at all, which is better still.

Would dispensing our own medicines materially improve the evils mentioned? Probably not, but it would take the doctor out of partnership with such practices, and at least his prescriptions would be his own property, and could not he refilled *ad libitum, ad infinitum.*

There are many drawbacks and inconveniences to dispensing, but in this day of granules and tablets, of alkaloids and active principles, of single remedies for single indications, of elegant pharmaceuticals in easily handled forms, it would be nothing like so burdensome as a few years ago, when everything had to be mixed and mortared, and pilled and capsuled, and polypharmacy was much more prevalent than now.

In conclusion, I will frankly say that, unless there is an improvement in the ethics of the pharmacists, the time will soon come when doctors will feel compelled to dispense, or else establish pharmacies in which nothing is kept for general sale, and the business is limited to the compounding of prescriptions.

A PHYSICIAN AMONG THE INDIANS

A doctor's life at a frontier army post and among the Indians. Indian life, Indian habits and diseases. Something about the Indian "medicine man"

By CHARLES S. MOODY, M.D., Mullan, Idaho

THE sun was a great globe of red fire through the dense alkali dust as it rolled in stifling clouds from beneath the feet of the four stage horses toiling up the long gray slope of a sagebrush-clad hill. The sun sank from sight as we topped the hill and at the same instant the clear notes of the bugle sounding the "Retreat" came floating to us on the still evening air.

I looked far down the valley and caught my first sight of the scene of my future labors. It was a beautiful sight after the long dusty stage journey through the burning heat. The snow-white Government buildings lay in a quadrangle about the parade ground. In the center stood the tall flagstaff from which the old flag was just fluttering to earth. At the same instant a puff of white smoke burst from the six-pound gun standing beside the flagstaff and soon the boom came roaring up the hillside.

The First Sight of my New Charge

Off beyond the quadrangle lay the broad expanse of the river reflecting the serenity of the gaunt hills. About the back of the fort rambled a small stream like a silver ribbon in the distance. Indian teepees were clustered all about, the smoke drifting lazily up from their conical tops. Indian children were rolling about on the green sward mixed with scores of Indian dogs. Here and there stalked an Indian buck, wrapped in the majesty of a red blanket. Indian squaws plodded patiently along beneath loads of brushwood or sacks of flour, bowing them nearly to earth.

Now the boys in blue are guard-mounting and I catch the flash of well-polished weapons as the new guard passes in review before the old. Now the bugles "sound off" and the old guard marches away in perfect cadence to stack arms and the new guard passes with equal precision of step to the guard post. Officers in immaculate uniforms pass from their quarters to the mess hall and my thoughts come back from the beauties of the scene to the more material one of hunger.

The great lumbering stage has been swinging like a ship at sea down the long slope and is now turning into the one little

street where stand the trader's store and the few buildings that always cluster about a frontier post. The postmaster is standing bareheaded in front of his office awaiting the mail sacks and an orderly is there ready to receive the mail for the post. With a flourish the driver winds the lash of his long whip about its stock and pulls the four up in front of the postoffice. He throws off the mail bags and leaps down himself.

The Welcome Hospitality at "The Post"

Cramped from my long ride I crawl down and am glad to feel the tread of Mother Earth once more. The orderly steps up and salutes. At first I do not know that that salute is intended for me. It feels rather queer the first time you have that mark of respect thrown at you by one of your fellow beings. One grows accustomed to it however, and rather to expect it. The orderly stood as though graven of stone until I asked him what he would have. Once more I was taken back: "The compliments of Captain Walsh, and would I honor him by taking dinner with his mess?" Now, there was something that I could understand. Would I honor him by taking dinner with him? Well, I rather guess I would. I signified my perfect willingness to honor the worthy captain by taking so much dinner as to threaten dire calamity to the mess, and bade the soldier lead on. Very soon I was shaking hands with the captain and his subordinates and meeting with a welcome found nowhere but in the west. As I ate they plied me with questions anent matters "at home", for was I not right from there? What mattered it if none of them chanced to be from my particular section; it was "home" to them.

"Taps" sounded on the night air and the post sank to rest. How still everything was after the noise of the city. The silence grew appalling as I lay in my white cot and tried to sleep. Then the night sounds began to intrude themselves upon my senses. Off in one of the tall cottonwoods beside the parade ground a tree frog tuned up. In a deep alder clump that bordered the little stream a solitary owl screeched. Heavens! what was that? I sat up, every hair on end with fright. Once more it came quavering in at the open window. Of all the awful sounds on earth that was the most terrible.

Only a Coyote!

I had heard of the blood-curdling Indian war whoop. Was this an attack in the night and all these men lying so peacefully asleep? I was on the point of waking some of them up when the chorus of Indian dogs broke loose. That reassured me. I realized that if the Indians were on the war path, they would not bring the dogs along. But what is that noise that sounds like all the fiends of hell are broke loose? I resolve to dress and sell my life dearly at any rate. I have just gotten one foot on the floor when a lieutenant rolls over in his cot and mutters, "d—n that coyote."

The sigh of relief that I heaved as I rolled back into bed can be better imagined than described. Still I had something to ponder over. He had said "that coyote;" was there then only one of him, and he possessed of all that voice? I opined that the gentleman was mistaken, there were at least fifty of him. No one animal could produce that variety of noises by his unaided self. Alas, I was destined to more fully realize the vocalistic capabilities of the coyote before I saw the last of that frontier post.

The coyote finished his serenade, the dogs sank back to sleep and left the night to the tree frog and the owl. I lay there and watched the soft harvest moon creep slowly up over the hill tops and shed her soft radiance down upon the scene. How beautiful was the pure white light, how clear was every object as though carved of stone. I could see the sentinel as he walked his beat and hear his measured footfalls on the hard earth. I fell to counting them. One, two, three, one, two, three, they fell until at last they began to become all jumbled up in my brain and by some mental alchemy transmuted themselves into the rumble of a railway train. Now we are approaching a station. The whistle shrieks and I start up to find it is daylight and the bugle is blowing "first call."

In an instant every man in that long hall is on his feet and into his uniform. Once more the round of the day is taken up. I am now a part of this great machine that moves with such clock-like regularity and henceforth I must accustom myself to a like regularity in my movements. No more dallying in bed until noon; no more laxness of discipline. From now forward my life must be run by a stern rule.

After breakfast the genial commandant escorts me to my castle. It is a square white building, standing apart from the others, surrounded on all sides with towering Lombardys. It is shelved from floor to ceiling and stocked with all the medicines and appliances that the prodigality of a beneficent government could suggest.

The captain rather jokingly informed me that I now had in my keeping the lives of every human being in that little community, Indians included, and that he hoped I would be particularly careful of the latter as Uncle Sam had only a few left and he did not care to lose any.

Getting Acquainted With Future Patients

I stood on the stoop, and like Crusoe, viewed my domains. The smoke was beginning to curl from the numerous teepees and here and there a flap would raise and a buck emerge, clad in the inevitable blanket. He would straighten up, wrap the blanket about him and stalk away. One by one the children, lithe little brown fellows, would come tumbling out, followed by anywhere from one to a dozen dogs, wolfish-looking creatures with all the stealthy cunning of their ancestry. I soon grew to know these animals better, and while I love a dog, I never could gain the friendship of one of these.

Even as I stood looking upon the scene a misshapen creature who looked little else but legs, came ambling towards me. He introduced himself as my interpreter. Joe Carom was the halfbreed son of a French trapper and was accounted a mighty man among the Indians. Many long rides did we take in the after time and I found him a man of more than ordinary intelligence and to his teaching do I owe much of my knowledge of the Indian character.

We passed the morning in visiting the teepees and getting acquainted with the savages whose physician I had become. The Indians always greeted me with that grave courtesy that is the index to the Indian disposition, but in no instance did they forget for a moment that I was not of them, nor did they allow me to forget it. The Indian follows the Shakespearian motto: "Give no man your perfect confidence until you have tested him." Once tested, however, and if found worthy they fulfill the dictum, "But the friends thou hast and their adoption tried grapple them to thy soul with hoops of steel."

I will confess being a friend of the Indian, I feel for him the same interest I do for a child. He is a child in everything but stature. He thinks as a child thinks, his passions are those of a child. I have seen a full-grown savage torture a blind puppy with the same abandon that a mischievous boy would and express the greatest degree of surprise if you suggested to him that perhaps the animal had feelings.

Then too, the savage does not look upon pain in the same light that we do. His religion is to endure pain, it is to him a virtue that he can withstand suffering. In all my years of experience with the natives I have never seen one that feared to approach the Dark River. They go down to death with the same fortitude that they withstand hunger. It is to them a purely natural process and merely a transition step from one life into another.

Indian Idea of the Future Life

It may not be inappropriate to add here that no matter how thoroughly you Christianize an Indian the ancestral idea of a future existence still remains with him. Priest and pastor may teach him of a shining city with music and singing throughout eternal ages, but deep down in his own mind he has a picture of a heaven of chase and battle, with no hungry days to stalk in and haunt. The savage is willing to accept the forms of your religion but he

grafts upon it his own substance. I fully realize that this statement will shock the "unco guid" who are bending every energy toward Christianizing the native, but the fact remains nevertheless.

The Indian's Martyr-Like Cleanliness

The idea has obtained among a great many that the Indian is an essentially dirty animal. Nothing can be further from the truth. Did the average white submit himself to one-half the hardships in order to keep clean that the Indian does he would consider himself a martyr. In order to illustrate my meaning allow me to relate an incident that very often occurs here in the west, and to relate it properly I shall have to take you down upon the river shore on a cold day in winter, with the slush ice running in the water and the hard snow flying in the gale.

Right by the water's edge stands a little hut of bent willows covered with mats of rushes and heavy blankets. In front of the hut lies a huge pile of heavy boulders. A fire burns near and in the fire lie heating several of these stones. Huddled about the fire in a perfect state of nature are some half dozen natives. They are smoking and talking while the stones heat. Shortly one of the boulders bursts with the heat and then everything is considered ready. One native takes up a pail and fills it from the river. Another begins rolling the hot stones toward the door of the little hut. One by one the Indians crouch on all-fours and enter the hut. The man with the pail enters last and they pack themselves away in there like sardines in a box. A man on the outside rolls in the heated stones and covers the door with several thickness of blanket. Soon the steam is seen issuing from the structure. The master of ceremonies is throwing water on the hot rocks.

Five, ten, fifteen minutes pass and you wonder if they are not suffocated. Half an hour passes and you are sure they are suffocated. Just about the time you are thinking of asking the attendant if he isn't going to drag the dead Indians out the flap is thrown off and the several bathers emerge. One would naturally suppose that they would hustle into some sort of garments, but one would be much mistaken. Those Indians are going to have a thorough bath. They begin a chant and a march single file toward the river. "A–e, a–e, a–e, a–e, a–e, a–e, a–e, *a–e–e–e–e–e–e*" (as the foremost one strikes the water); thus they march right into that ice cold water. In this they remain for ten minutes, splashing and yelling like boys in a mill-pond.

Do not suppose the bath is ended. They return to the fire and another lot takes its turn while these smoke. After the next lot has been partially purified the first lot returns and submits themselves to a repetition of the performance. I have known one lot of Indians to bathe thus for three or four times. Still there are people who consider an Indian filthy.

The body odor of an Indian is offensive to most persons. That gives rise to the idea that they are dirty. The body odor of a Negro is equally offensive to me and Chinamen tell me that the body odor of the white people is at times extremely offensive to them. Hence I conclude that it is merely a matter of education. At least I will admit that I am unconscious of any odor emanating from a savage now, though at first I could hardly stand it in the tents. Such a powerful thing is habit!

Cleanliness in Cooking? Ah, No!

Viewed from our lights the culinary efforts of the savage are not only dirty, they are absolutely filthy. The savage does not appreciate the value of cleanliness in his cooking. He reasons that it is all dirty at the subsequent end of him then it just as well be dirty at the opposite end. Just how much reasonableness there is in the contention I will leave to our hygienists to figure out. If the recent investigations of the meat industry count for anything we do not possess very much advantage over the savage. A great deal of the filth eaten by the Indian is the result of hereditary training.

An Indian allows nothing to go to waste. Every particle of a slaughtered animal is utilized. It is rather a disgusting subject

but I have known a pregnant doe to be killed and the fetus fawn to be especially reserved as a tid-bit. Indeed, I was myself presented with a pair of these by one of my lady admirers. To have refused the gift would have been tantamount to cutting the cord of friendship that bound us. I accepted. What I did with the offering only the pale-faced moon and the silent stars can testify. Perhaps the coyotes could have told a few days later but fortunately they cannot speak Indian.

Fine Houses—But Teepees in the Yard!

It is rather an amusing fact that while a great many of the tribe, after the sale of their lands, built themselves fine houses and furnished them in the most lavish style, they did not occupy the same. The invariable teepee stands in the yard and the invariable squaw can be seen stewing some nauseating mess over a camp fire the while the magnificent range stands in cold and silent grandeur in the kitchen.

The Indian is naturally a hospitable, gregarious animal. Every event in his life, from the cradle to the tomb, is celebrated with a feast. If he or some of his marries, dies, breaks a leg, trades horses, or kills a deer or bear, the event is made the excuse for a "potlatch." If you see a string of humanity-laden cayuses, followed by a regiment of hungry dogs all headed in one direction, you may rest assured that there is a "potlatch" in progress. It does not matter to the Indian if there is only food enough for that one feed. He obeys that Scriptural injunction to "take no thought of the morrow" to the very letter. He says in substance, *Apres moi le deluge*, and eats it all today.

This gormandizing has been the means of depriving our Uncle in the high-water pants of diverse and sundry of his red children. More if anything than the guns of his blue coats or the pills of his doctors. So long as the savage was confined to the simple fare of his forefathers he experienced but little trouble from eating everything in sight, but when he became possessed of sufficient coin of the realm to buy what he wanted, he naturally wanted those things that were not good for him. In that respect he resembles his white brother very muchly. In consequence gastrointestinal diseases became rife and the gentleman with the scythe, riding his old white skate, reaped a bountiful harvest of redskin scalps. Incidentally the Government physician gained much needed experience.

The bill of fare of the native who had just got his pay from the Government consisted largely of dried fruit, syrup, honey, jelly and soda crackers. The dried fruit was consumed without cooking, the syrup as a beverage, while the jelly was scooped out of the can or bucket with the crackers and consumed by the pound.

I have often seen a family of three persons go into the store, buy a pail of jelly weighing twenty pounds, a thirty-pound box of soda crackers, repair to the shade of a tree and deliberately consume the entire mess. I usually loaded my hypodermic with apomorphia, got down the bottle of fl. ex. ipecac and the c. c. pills and prepared for battle.

Giving Medicine to Indians

That introduces another thought regarding the administration of medicines to an Indian. Whatever you get an Indian to swallow while you are watching him is all you will ever get down him. The moment your back is turned the medicines that you leave are heaved into the fire. Sometimes I have thought that perhaps the savage is wiser than we credit him with being. I learned very shortly that two things were necessary to the readjustment of health in every sick savage. One was a thorough emetic, the other an equally thorough purge. I almost bankrupted the United States Government buying compound cathartic pills. It took a great many. Nothing short of a handful will feaze the average native stomach.

Ages of experience has taught the Indian many things that we with all our enlightenment have not learned. One in particular is the custom of the lying-in chamber. The pregnant woman feeling the approach

of labor repairs with two old women of the tribe to a teepee erected for the lying-in chamber at some distance from the living teepee. The flap is drawn close and a flag flutters from the top to warn all away. In the center of the teepee is erected a stout pole four inches in diameter and reaching the top of the tent. An open fire heats a vessel of water. In one corner (if a teepee may be said to have corners) lies a bed of blankets. The expectant mother either sits or moves about the teepee followed closely by one of the midwives. Whenever she has a pain the midwife grasps her about the waist from behind and presses downward upon the tumor. When the pains become more severe and expulsive the woman in labor kneels beside the pole and grasps it high above her head. Behind her kneels one of the midwives while the other sits in front. With the recurrence of each pain the mother pulls heavily downward upon the pole and the midwife assists her from the rear.

When the head appears at the vulva the woman in front grasps it in her hands and the mother falls back upon the couch. The secundines have already become loosened by the pressure and usually follow the child very rapidly. The cord is severed with a sharp stone or a knife. Usually they prefer bruising it off with a sharp stone to prevent hemorrhage. If everything has passed off smoothly the mother is given a bowl of gruel made from the inner bark of the yellow pine and next day she takes her place among the tribe with the little black-eyed youngster securely strapped into his board cradle, from whence he peers out at the strange new world opened up before him.

Professional Methods of the "Sikiptiwat"

As is quite often the case, if the labor has not terminated so easily, the "sikiptiwat" is called in. He comes armed with all the panoply of his craft. I trust the reader will not accuse me of professional jealousy in dealing with this professional brother. He is an institution that no amount of civilization has been able to eradicate. This is not all surprising when we pause to reflect that people who possess what passes for a very superior grade of intelligence, such as college presidents, eminent lawyers, prominent divines and the like are devout followers of a medicine man whose claims to recognition are founded upon no better grounds than the Indian "sikiptiwat," with his string of dried elk teeth and his drum made from the bladder of a slain deer.

The appearance of the medicine man is the signal for a general outburst of mourning. The entire camp breaks into a prolonged wail that lasts so long as the "sikiptiwat" remains. Dressed in the robes of his high calling the medicine man enters the tent shaking his elk-tooth rattle. He bears a long pipe filled with the aromatic leaves of the kinnikinik. He seats himself before the recumbent woman and proceeds to exorcise the evil spirit. That the evil spirit may be a pair of interlocked twins, a footling or shoulder presentation, an hydrocephalus or any one of the countless accidents of accouchement does not matter in the least to my savage confrere.

He fills his lungs with the smoke from the pipe and exhales it slowly upon the bare abdomen. Perhaps that is sufficient. At any rate he waits to see. If the woman is not delivered shortly he shakes his head and tries another remedy. How like the civilized doctor. This time it is a vigorous shaking of the dried elk teeth, that rattle like castanets. Another wait. No results following he plays his last trump. This consists of drumming the devil out of there The drum consists of a deep hoop over which has been tightly stretched the dried bladder of a deer. This instrument he hangs from one of the tent poles and proceeds to beat it with a dried shin bone of some animal. All this time he is chanting in a tone that would certainly frighten the wits out of any sensible devil on earth. Sometimes the devil is obstinate and will not avaunt. In that case the "sikiptiwat" copies after his more enlightened brother, he lets the woman die.

A Case of Professional Jealousy

I gained my first firm hold upon the affections of the Indians by relieving one of their women when the "sikiptiwat" had failed. Incidentally I earned the everlasting ill-will of that native practician. Professional jealousy you see. The case was one of a twin pregnancy in which the woman had labored for thirty-six hours. The medicine man had exhausted his skill, and as a *dernier ressort* I was asked in. I found the woman, a three hundred pound mountain of flesh, lying on the couch with a child half born. One leg was in the world, the other being hooked up over the brim of the pelvis. Upon investigation I found that the first child had his head wedged into the arm pit of another one behind. I disengaged the head and bringing down the other leg delivered the youngster, dead. The after-coming infant was alive and I hastened to deliver it. This all took but a few minutes. I made the woman comfortable and took my leave. In a very short time my skill was heralded all over the camp and my colleague had his nose out of joint. Henceforth I could swell up and act haughty, just like my brother in a higher walk of professional life. I had "made good" among these people and now my word was law.

(*Concluded next month*)

NUCLEIN: AN EXPERIMENTAL STUDY

A record of physiological and clinical experimentation concerning the field of usefulness and limitations of Nuclein

By ERNEST S. HEILMAN, M.D., Ida Grove, Iowa

SEVERAL years ago I became interested in nuclein and nucleinic acid and used it to some extent, not especially in surgical but also in medical cases; but it seemed that opinions varied and conflicted regarding this substance.

It was rather a long and tedious task to disprove by the microscope or clinical data the claims made, and so I discontinued its use; but since the literature and investigators have established new facts pertaining to the condition of the blood during disease, especially those diseases that terminate in suppuration, I thought that it would be a good time for me to investigate for myself.

I have also been scrutinizing literature carefully in regard to current opinions and the result of investigation about this substance. I find that there seems to be quite an inclination to give some attention or credence to nucleinic acid.

The Metchnikoff Theory of Immunity

Laboratory findings seem to accept the Metchinkoff theory, that certain infections or bacteria introduced into the system will produce an increase of a certain variety of leucocytes (polymorphoneutrophiles), while as these are destroyed, or in their destruction, there is an antibody produced which increases their resistance.

In a general way this rule holds good towards certain kinds of bacteria, especially the pus-producing microorganisms. There has been a list of exceptions already ascertained, and this list will probably be increased in the future.

This fact was discovered by certain foreign observers who were working on this theory: that during or just after injecting albumose in animals there was a reduction of leucocytosis followed by a very noticeable increase, and if infection was brought about during this reduction of leucocytosis death was the rule, and that if infection was produced during this hyperleucocytosis the course of the disease was influenced in a favorable way, the animal often recovering.

Prof. Mikulicz authorized a series of experiments resulting in evidence that the

injection of certain substances had an undoubted value in lessening the occurrence of peritonitis. The experiments consisted in performing a laparotomy and forcing through an opening of the stomach or intestines all the contents that could be obtained from the near vicinity of incision. Of five control animals which were used, four died, and the fifth became severely sick but finally recovered, but in this animal the amount of intestinal contents had been considerably smaller than any of the others. Next he took ten animals and gave each three intraperitoneal and two subcutaneous injections of neutralized nucleinic acid; performed a laparotomy and forced out as much intestinal contents as possible; laparotomy being made seven hours after last injection. All the animals recovered without exception.

Accepting, then, these facts: the Metchnikoff theory, the von Ehrlich's theory, the laboratory findings, and that all pus cells are dead (polymorphoneutrophiles), also that there are certain substances which will produce a hyperleucocytosis with the neutrophiles in preponderance (the known substances being pilocarpine, sodium cinnamate and nucleinic acid), I took five normal subjects and established the leucocyte count of polymorphoneutrophiles in each individual, making the count when the physiological increase was not on, i. e. after the digestive process was over, and found the leucocyte count to vary in one from three thousand to five thousand, in another from five thousand to seven thousand, and in the others between these points. I then gave them thirty to forty drops of nuclein by mouth, four times a day, and found that there was no material difference and that the count was practically the same. My only conclusion was that nuclein was decomposed by hydrochloric acid in the stomach, and thus of no effect.

Hypodermics of Nuclein Increase Leucocytes

I then took the same individuals and gave them 30 drops of nuclein hypodermatically three or four times a day and in each individual there was a constant ascending leucocyte count, appreciable after the second injection and continued so until after ten or twelve injections, when the leucocyte count would show fifteen to eighteen thousand leucocytes. At this time the injections were discontinued as they were slightly painful.

I have used this procedure in some fifty surgical cases, including carcinoma, radical removal of tubercular glands of neck, appendectomy, oophorectomy, salpingectomy, cholecystectomy, herniotomy, secondary appendiceal abscesses, including one case of rupture of uterus, with but one infection, which was of the skin.

The technic was as follows: In surgical cases 30 drops of nuclein was injected into the deep subcutaneous tissue by the ordinary hypodermic syringe.

The Prophylactic Value of Nuclein

The question arises whether a hyperleucocytosis produced by nuclein or some other similar substance would not be of practical value as a prophylactic measure; also whether mobilizing the leucocytes before the bacteria enter the body, even in small numbers, would not be of greater service than waiting until the bacteria have increased in number and virulence.

While this method will not give absolute certainity, like specific immunization, it may, under certain circumstances, increase the natural resistance a great many fold, and yet even this, in certain instances, will not be sufficient, because we have no way of knowing the amount of infection or its virulence.

This fact is generally accepted: that the leucocytes have a prognostic value, also that they have a great deal to do with the resistance, and the only way that nuclein will establish itself as a therapeutic agent will be for it to have a more extensive trial, by using it in a series of cases which have a definite mortality and comparing the results obtained.

The indications for its use would be limited to those diseases of pus-producing organisms which produce a local reaction, abscesses of all varieties, serous membrane inflammations, gangrenous inflam-

mations, and all acute infections attended with a local inflammation: erysipelas, pneumonia, phthisis (with cavities), meningitis, diphtheria or pyemia.

A number of reports have been made on nuclein. Moynihan reports forty-eight surgical cases where the peritoneum has been exposed to infection, in which the seven fatal cases were not produced by peritonitis. Pollak, in *American Journal*, Sept. 22, also reports two cases of streptococcic infection in which he attributes good results to nuclein. Deitz also reports two cases of puerperal sepsis with streptococci infection and credits nuclein with the good results obtained.

Where Nuclein is Not of Value

The nuclein field of usefulness being limited to those diseases in which the infection is combated by hyperleucocytosis, diseases like malaria, measles, epidemic influenza, typhoid fever and tuberculosis, in which the resistance is not due to a phagocytosis, would not be influenced by nuclein.

In surgical cases we set all our apparatus which we know are fairly reliable, to work, to prevent infection, yet we see that even then we meet disaster occasionally, and in nuclein it seems that we have an aid to combat this situation. To quote von Mikulicz, the father of the aseptic era, regarding nuclein: "The number of my experiments is not sufficient to permit me to form definite judgment or to give an unguarded opinion, but I have this impression, that the cases hitherto treated have given more favorable results, not only in the number of cases that recovered, but also, in the progress of the individual cases, than the analogous cases of earlier date when the operation was performed without this preoperative preparation."

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In dealing with evacuants, or remedies whose effects are likewise quickly manifested and readily recognized, there is little difficulty in placing them in their proper place, but when a remedy does not exert such an obvious influence, or requires time for the development of its peculiar effects, the case is different.

With nuclein the difficulty lies in the recognition of its effects by clinical observation. There may be absolutely nothing which the physician can accept as absolute proof of beneficial action, and yet the laboratory may ascertain an enormous increase in leucocytosis. It requires therefore just such careful studies as our friend has made, to determine the true place of this agent. The same thing holds good with such remedies as berberine, which requires a month to develop its action; or phytolaccin, whose effects may not be apparent for three months; and still more with echinacea, concerning which no definite action has yet been proved when administered to persons in health, but there is nevertheless a consensus of opinion as to its possession of remarkable curative properties when administered to persons in various septic conditions.

We welcome, therefore, such papers as that of Dr. Heilman, and hope it will stimulate others to this most necessary work.—Ed.

BANISH the future; live only for the hour and its allotted work. Think not of the amount to be accomplished, the difficulties to be overcome, but set earnestly at the little task at your elbow, letting that be sufficient for the day; for surely our plain duty is "not to see what lies dimly at a distance, but to do what lies clearly at hand."
—William Osler.

THE EARLY DIAGNOSIS OF TUBERCULOSIS

The physician should recognize tuberculosis at the earliest possible moment; the importance of this should be brought home to the laity. Value of tuberculin test

By G. R. POGUE, M.D., Greeley, Colorado

IN hardly any other disease is early diagnosis of such importance as in pulmonary tuberculosis. Time is everything. In the later stages the disease betrays itself even to the untutored, by cough, expectoration and emaciation. The early symptoms, however, are often very ambiguous and misleading. Physicians are, therefore, very apt to fall into error, and reach a correct diagnosis only after their best chance has passed by."—(Cornet).

The Importance of Early Recognition

At the present time when so much is being written on tuberculosis and so much energy and money are being expended on the prevention and cure of a disease that counts its victims by hundreds of thousands annually, the early recognition of the disease becomes of extreme importance to the medical man as well as the public at large. That tuberculosis is a curable disease is demonstrated every day in post-mortem work, where old, healed lesions are found in a large percentage of the bodies of adult persons dying of other diseases. It has often been stated that tuberculosis is curable in inverse ratio to its duration and the extent of the lesions present, and experience has proven the statement to be correct.

In the United States we have an annual death rate of 150,000 from tuberculosis, and it is safe to say that 50 per cent of these victims could have been saved to the community and made useful citizens, to say nothing about the prevention of the spread of the disease, had their disease been recognized in its early stages and proper measures instituted to bring about an arrest of the process.

That we are advancing in this line, even more rapidly than we had hoped, is evidenced by the greater numbers of incipient cases of tuberculosis that have been sent to Colorado during the last two or three years, together with a diminution of the number of advanced cases that for years had flocked to our state, seeking to regain their health and whose disease had not been recognized until all hope of recovery was passed. This change indicates that the medical profession is becoming better versed in a knowledge of the pathology and symptomatology of the so-called incipient stage of tuberculosis, and that they are making a better interpretation of the phenomena that are produced by smaller and fewer lesions, which in the past have so often led us into error, or delayed our diagnosis until it was too late.

The Physician Must Know His Pathology

Since the tubercle bacillus may enter the body by so many different routes and produce such a varied class of lesions, the physician who attempts to properly interpret the symptoms that are produced by the smaller lesions, should have a thorough knowledge of their pathology, from the most minute lesion up through the various steps of advance, that is from the first minute point of infection until the lesions may become extensive enough to be easily recognized by the ordinary methods of physical examination.

Such a knowledge will greatly aid in placing signs and symptoms in their proper category, and in recognizing that certain small and unrecognizable foci of disease are capable of producing certain phenomena and that it is necessary for the future welfare of the patient that we be absolutely certain if tuberculosis be the cause of the disturbance or not. Again, it often becomes necessary

for the physician to satisfy the patient as well as himself why an individual in apparent good health should suffer from loss of appetite, decrease in weight, slight afternoon rise of temperature, shortness of breath and increased heart's action on slight exertion, morning cough with or without expectoration, an occasional night sweat or any of the other phenomena that are so often seen to be followed by an easily recognized attack of tuberculosis.

Physical Examination Not Sufficient at Inception

Because most cases of tuberculosis met with in this country are of the pulmonary type, a physical examination of the chest that does not reveal any marked lesion is often considered sufficient evidence to exclude the diagnosis of tuberculosis, and a negative statement to the patient may often cause him to rest on false security until his disease becomes so far advanced that his chances for recovery have been greatly lessened. "The trouble with the doctor is, he usually defers his diagnosis until the appearance of all symptoms makes it absolutely certain that tuberculosis is present. I believe it is better to have ten men, all cured, and have some doubt as to how many of them really had tuberculosis, than to have five dead and five permanently damaged, and be 'dead sure' that they all suffered from tuberculosis."—(Hall).

My own experience, covering a period of six years, in treating tuberculous persons, with a series of 253 cases, shows that the earlier the patient comes under treatment the better his chances are for a permanent arrest of the disease. These cases were classified according to the rules laid down by Turban, as follows:

First stage. One hundred and fifteen cases; 100 per cent had their disease arrested and of these 104 or about 90 per cent appear to be permanently cured.

Second stage. Eighty cases; more than 98 per cent had their disease arrested and of these 68, 85 per cent are apparently cured. Of the 58 third-stage cases the death rate was over 50 per cent; 30 died and only 11 had a complete arrest of their disease. The above figures show the great necessity for the early recognition of the disease.

The Physician Should Educate the Laity

The tubercle bacillus is no respector of persons, and the strength and apparent physical well-being of our patient should never be allowed to interfere with our properly weighing the evidence at hand. If we keep this always in our mind, we will not so often overlook some cases that occur in robust and apparently healthy individuals.

In these early cases where the lesions are small and the symptoms mild, we often have great difficulty in convincing our patients of the true nature of the disease, even though to the examining physician the evidence at hand may be abundant. This state of things exists at the present time because a great majority of the laity cannot conceive of tuberculosis in any other form than as advanced "consumption" and are not aware of the great advantage to themselves of recognizing the disease early. Such patients often go from one physician to another seeking a diagnosis that will suit their own peculiar way of thinking, and often not accepting the diagnosis until the disease manifests itself by more marked symptoms. The laity need enlightenment on this subject and no one should be more capable or better qualified for the task than the family physician, upon whose shoulders the burden must fall. When we discover a case of tuberculosis, no matter how mild the case, it is our duty to so inform either the patient or his friends of the true condition. It is criminal negligence to withhold the information or to pass it off as a case of bronchitis, "catarrh," or weak lungs, and it is impossible to properly treat and manage a case of tuberculosis where the patient is unaware of the nature of the disease, as such radical changes must be made in mode of life, surroundings, etc.

In making a physical examination of a patient suspected of being tuberculous, we are often led into error, or at least we delay our diagnosis because of the absence of sufficient confirmatory symptoms; but

the vital importance of the subject to our patient demands that we go further, even to the very limit of medical science, and if it be possible, either confirm or eliminate tuberculosis as the cause of the conditions present.

Where Tuberculin Proves Useful

It is not my purpose to go into a review of the pathology and symptomatology of the early stages of tuberculosis. Present day text-books give a clear presentation of the subject. Cases that are far enough advanced to have open tuberculosis, where the tubercle bacillus can be demonstrated in the excretions by the microscope, are easily recognized, but these are seldom incipient cases. It is the mild cases without ulceration or external communication that require a more definite mode of procedure to make a positive diagnosis. It is here that tuberculin (a standard preparation) comes to our aid as a most valuable diagnostic agent, and when properly used it practically leaves no doubt as to the presence or absence of tuberculosis in the individual tested.

The literature of tuberculosis, especially the foreign, is replete with the opinions of various competent authorities as to the value of tuberculin, both as a diagnostic agent and for therapeutic purposes. In America it is only the few who have used it to any extent, yet it is surprising to note how many physicians oppose its use for any purpose; not that they have had experience with the drug, but because it did not conform to their hopes when first introduced by Koch. It was then a crude drug, its physiological action and therapeutic properties were unknown. The early investigators used it in large doses and in the most unsuitable cases and it soon fell into disrepute.

In recent years tuberculin (or tubercle bacilli preparations) has come into use to a greater extent, and a better knowledge of its action and proper dosage has robbed it of its "terrors." At the present day it is used in most large hospitals as a diagnostic agent and by many physicians in private practice therapeutically, more especially in Europe. "There is no recorded case, where the drug used for diagnostic purposes, in doses of 1 mg. to 10 mg., any bad results have followed the injections".—(Latham). I have used it in over 300 cases both as a diagnostic and therapeutic agent and at no time did I see any ill results follow proper dosage. Although the tuberculin test does not always reveal the location or extent of the lesions, its proper use practically clears up all doubt as to the presence or absence of tuberculosis in the individual tested. Old, healed lesions seldom or never give any reaction to tuberculin injections.

The Tuberculin Test Must Be Given Intelligently

Before resorting to the tuberculin test for diagnostic purposes, it is necessary that the physician should have exhausted all other means at his command. He should have made a thorough physical examination, made repeated microscopical examinations of the sputum (a negative finding with the microscope is not positive evidence against the presence of tuberculosis). He should be thoroughly acquainted with the history of the case and have a two-hour record of the pulse and temperature for several days. A temperature above 37.8 C. contraindicates the use of tuberculin, and the patient should be put to bed with complete rest, until the temperature becomes normal for at least four days.

After consulting the rules laid down by the several authorities and considerable personal observation, I have adopted the following procedure. After getting a full history of the case, making a thorough physical examination and repeated microscopical examination of the sputum, if there be any, and am still in doubt, I procure a two-hour pulse and temperature record of three to five days. This record is necessary to compare with the record following the diagnostic dose. The initial dose is generally small, as certain individuals are very sensitive to tuberculin—1 to 5 mg. The same two-hour record is kept, and if no reaction occur, a second and larger dose may be given at the end of three to five

days, and if necessary a third dose may be given a week later. The second dose is generally 2 to 5 mg. and the third 5 to 10 mg. It is seldom necessary to give over 5 mg. in these early cases, as they generally react to the smaller doses if any active disease be present. If no reaction occur it is safe to say that our patient is not suffering from tuberculosis.

Symptoms of the Tuberculin Reaction

A tuberculin reaction is manifested by certain phenomena, such as a rise of temperature of 1.5 to 3.5° C., a more rapid heart's action, malaise and headache, a local reaction around the diseased area in the form of congestion, recognized in the lung by increased moisture and expectoration, in tuberculous glands and joints by slight swelling and tenderness, in visible tuberculosis of the larynx, iris, mucous membrane and skin by a passive hyperemia around the tubercles. The congestion passes away in six to eight hours while the other phenomena may last for ten to fifteen hours, after which they subside and the patient feels as well as usual.

The general practician may consider this a long and tedious procedure, but the future welfare of our patients and the necessity of instituting prophylactic measures for the protection of the general public, in case the patient be tuberculous, demands that we leave nothing undone to arrive at a positive diagnosis.

Tuberculin is very valuable in differentiating chronic bronchitis, bronchelchosis, and even advanced necrotic conditions of the lungs caused by other microörganisms than the tubercle bacillus. A few cases have come under my observation where a diagnosis of tuberculosis had been made, and where the symptoms and physical signs simulated a tuberculous condition, but where the tubercle bacillus had never been demonstrated microscopically in the sputum, and without the tuberculin test, a positive diagnosis could not have been made. While the ultimate result in some of those cases was in no wise altered by the knowledge gained, it was a source of satisfaction not only to me but to the patients and their friends. Again, certain cases sent to Colorado for bronchitis, "catarrh," etc., proved on test to be tuberculosis and proper management and treatment instituted.

Tuberculin Used Only When Other Means Fail

Tuberculin for diagnostic purposes is not advocated to the exclusion of any other method and should be used only where and when a positive diagnosis cannot be otherwise made. By its use we can often recognize a disease that is curable in the early stage, but if left unrecognized and without care and treatment will surely lead to the death of the individual so diseased.

"In doubtful cases the diagnosis may be decided by the use of tuberculin. We know that in cattle tuberculin makes the diagnosis certain in 90 per cent of the cases, and there is no reason why there should be an exception for tuberculin in the case of man, whose organism responds so specifically to the various infections."—(Turban).

"I regard tuberculin as a safe and efficient diagnostic agent."—(Osler).

"Injections of tuberculin often clear up the diagnosis in cases which baffle every other means at our command."—(Cornet).

"The value of tuberculin in diagnosis of obscure cases has become more and more firmly established and its harmlessness when properly used, has been proved by the results in many thousands of cases."—(James.)

"Tuberculin tests are justifiable."—(Musser.)

Koch's old tuberculin is probably the best standard preparation in use at the present time for diagnostic purposes and keeps indefinitely and can be used by diluting with distilled water when required for use.

NEURASTHENIA AND PUBERTY

This is the third paper in the series on "Neurasthenia." The period in which the sexual sense is developed

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THAT neurasthenia at any age is a problem of supreme interest no one with experience will attempt to deny, but to me it seems that the problems which it presents at puberty, problems which must meet correct and effectual solution at any cost of time and trouble to the physician, or the ruin of the patient is fatally assured, are far more interesting, as well as more difficult, than those of any other age.

The individual equation is not to be neglected at any time, but at puberty it becomes paramount, and sometimes one is inclined to ask if the equation is a constant quantity, so violent are the transitions in the field of its manifestations. But even if the exact nature of the manifestation during a given period is maintained we cannot be sure that the impelling motive is the same also. The young woman who devoted herself to study the last week for the sake of giving pleasure to parents and friends will study just as painstakingly the next week with the confessed desire to make herself sick and thus grieve the very friends and relatives which last week she wished to please, and this is only one in one thousand possible changes.

Yet notwithstanding its protean character this condition presents a rational course, though wanting in formal similarity in nearly all cases, as is shown in the absolute inability to condition "self," even to the very least degree. A neurasthenia is not a creator but a creature of conditions.

The first of these conditions of importance to us is puberty, by which is intended in this paper several distinct notions, for each of which I must unfortunately use the same word, qualifying it by periphrasis, since I cannot indicate the difference in meaning in any other way.

As understood in this paper the word *puberty* signifies the process of change by which the child, immature functionally, impotent and incapable of reproduction and in this sense properly to be described as sexless, grows into a being with the organs and functions of reproduction in a condition suited for the maintaining of the race, that is for propagating individual progeny. The period during which this process is in being is the age of puberty, not the day or date of any one incident in the process, and in this sense the age of puberty is the period which begins when the accessory organs of sex commence their growth from the *quasi* embryonic (*seu* infantile) condition in which they appear at birth, towards the condition which they present when they have attained full functional activity. To fulfill this definition it is not enough that the organs shall be capable of functional activity in the potential mode only, but the functional potentiality must be exercised, the act of reproduction must be performed before the organs of reproduction can reach their perfect development, and therefore no virgin-man can be regarded as past this age; and no woman who has not beheld the face of her first-born, son or daughter, and who has not given to it (if she be able) the nourishment which Nature still provides for human young in the majority of women.

Delayed Development of the Female

For the male the sexual function reaches its full development in proper season, but in the female, partly by reason of social decency, partly by reason of domestic necessity, the sexual life is often incomplete, or its development is interfered with, so that the woman may never attain to

adulthood in the full functional, *seu* physiological, sense. The assumption that the sexual development of the individual woman is histologically and physiologically complete when menstruation has become functionally regular is not true, in fact, as must be perfectly familiar to all those who have noted the change in form and functional activity of every sort which follows upon the birth of a woman's first child.

The sexual function in the woman, therefore, suffers a period of repression which is the cause of an immeasurable pain and ill—pain and torment to the individual, suffering that might easily be avoided by a little social wisdom, but which on the contrary gathers force as years go by, and of injury to the race, since children who might, all things taking their natural course, be born of healthy mothers, are from the conditions of their birth the children of women whose sexual life has been deformed and misdeveloped, so that from the very nature of things they cannot transmit a proper and becoming prenatal experience to their children. Motherhood has been so long delayed, the sexual instinct has been so long repressed, impulses perfectly normal, natural, modest, sacred to motherhood and consecrated to the development of the race by enabling reproduction from the best specimens of both sexes procurable, are repressed as being abnormal, unnatural, immodest, vile. The natural result follows: Children are born of *aged* parents and pay the price in misery and pain.

The Young Mother the Best Mother

A woman whose sexual life is healthy, whose body is large enough, whose desires, whose conscious and unconscious actions show that she is sexually mature, even if she be but seventeen or eighteen years old and has not yet taken her degrees at the university, will make a better mother then, is then more fitted to reproduce her race than she will be twelve years later, when, dignified by scholastic honors, she has all but destroyed all sexual instinct, when healthy sexual desire is beyond recall, when true sexual love has been made impossible by the modified nutrition of the nerve centers. The love of the doctor of philosophy, graduate of Barnard, authoress, aged 27 years, is by no means the love of the joyous maid who left the school to go to college, and the first born son of the Ph. D., born when his mother is already past her reproduction passion, will never be the man he might have been had his mother, not his father, been ten years younger.

The young man of twenty-five or thirty, more fittingly in most cases the latter, married to a woman not of his own age but a dozen years his junior, has a better hope of happiness than the marriage of the man of thirty years with the woman of twenty-five.

Such is the age of puberty as understood by the writer, the period between the beginning of the awakening into functional growth and activity of the sexual organism and its gratification in the reproduction act.

The Period of Puberty in Males

In man this period is seldom artificially prolonged, indulgence of the sexual desire is so easily accomplished. Consequently the period of puberty contains fewer opportunities, for the development of neurasthenia and the life led by young men may be said to limit opportunity still more. Thus, whole classes may be excluded in a single group, the boys in the great boarding schools, for instance. It is simply impossible to imagine the life of a neurasthenic youth in Hotchkiss or other of the great boys' schools.

There may be somewhere the conditions are less rigid and where the influence of Natural Selection, all-powerful in the larger and better-developed schools, has less sway. Thus there is one school known to the writer which is really a hospital, and in its classes are to be found cases of neurasthenia in all its recognized forms and in nearly every stage of development. The numbers in the colleges are not many and they are usually those in which the neurasthenia is limited to certain faculties, while associated with special development in

others. Neither do we find any great number of these unfortunates in the public schools because the pressure is not sufficient nor the environment favorable.

The conclusion naturally made is that male neurasthenics are relatively few at this age, and this conclusion is probably true; yet it does not simplify the problem of therapeutics, for what these cases lack in numbers they make up in variety of types. This is so true that each case is specially its own problem and the physician who had charge in a school for boys, which might better have been called a hospital for neurasthenics, declared that he had to consider each boy as an individual as much as one in a group, and said that his work and the gymnasium were the teaching, and scholastic exercises were thrown in for recreation.

"Fear" the Characteristic Trait

This physician had very well-defined notions in regard to his charge and he was ever ready to defend those concepts in relation to them which he believed to be true. In reply to the question of most interest to me: "What is the characteristic trait, if they have any?" he answered, "Fear."

"What!" I exclaimed, "are they all cowards?"

"I did not say cowardice, I said fear. You cannot call a boy a coward who does a thing which he fully expects will bring him death because he considers it his duty, and yet he should not have believed that there was any danger."

As I did not understand him at all I persisted in my questions and finally understood what he really intended. These boys had a sense of their physical inferiority to other boys and it was only when assured that his pupils would win that he encouraged a contest, but when once they had won there was prospect of cure.

In reply to the question, "To what do you devote your first attention?"

"Building their bodies."

"After that?"

"Building their bodies bigger."

"But when their bodies are as big as you want them, what then?"

"They never can be," was his reply.

Then when I questioned him in regard to this characteristic of fear, and asked him what it all stood for, he said, "Suppose that you had always been the weakest in a group and had been made to feel that you lived only because others feared to kill you but they might abuse you in any other way they pleased, would you not fear?

"Sparing the Rod and Spoiling the Child"

"Do you see that boy there with yellow hair, is he not handsome? Now listen and I will tell you something. When he came here his father accompanied him, and he, the father, told me that he was utterly untruthful. I demanded to know what he intended by his remark and he said no matter what the boy did he would try to lie out of it. I said: 'You believe in sparing the rod is spoiling the child, don't you?' 'Certainly I do,' the fool said. Well, sir, that boy had been here two days and he threw a stone, the wind made it sail and it broke a pane of glass in that hot-bed. I yelled at the boy to come to me; he came and fell down on his knees and begged me not to beat him. I said, 'My child, who said anything about a beating? I only called you to tell you that you did not know how to throw stones.' Then he fainted. There is the pathology of most cases of neurasthenia in one act—parental stupidity, result, fear. Now notice, please, that boy went up a ladder into a burning building last week. Another boy here had been forbidden by his father to learn to use his fists; he had a hideous reputation; he has been taught to box, and the cause of the evil reputation has vanished. That little kid there has been driven through the preparatory Latin and most of the mathematics for college. I will show you his photograph when we go in."

Naturally I was amazed and I said: "Is there no such thing as neurasthenia in children from natural causes?"

"All neurasthenia has a natural cause, parental vanity and oppression."

So, alas, it seems. I have already said enough of its influences in the very young; this will suffice in reference to one class of those older.

When Nutrition Begins to Run Short

There are some cases less easily diagnosticated than those in this physician's charge —a class in which the nutrition is enough until the development of the body begins and then it runs short, and they are peculiarly difficult to diagnosticate because they do not betray themselves immediately. It is also a fact, I think, that these cases are peculiar to boys who are either actually, or in effect, orphans and are attending schools or colleges in which physical exercise is not compulsory. Naturally these cases now are few, but from time to time we see them in the boys attending so-called business colleges. Their means of subsistence are limited and they are compelled to live on as little as they can, to work as hard as they can, and they do not sleep enough. These cases naturally fall into the hands of the hospital physicians.

Male Neurasthenia at Puberty Restricted

As a subject for study, especially of a study of this sort, the neurasthenia of puberty in the male is signally unremunerative and is confined to the small class which does not find its way into any recognized school, public or private. That is, it is confined to boys who are either taught at home by private tutors or in the "cram shops" which do not undergo periodical inspection by the authorities. The inmates of such schools (all are day schools) are distinctly to be pitied. No one regards their health and the one idea is "cram."

We have already indicated how the moral brain is injured by the intellectual voracity and how the somatic brain and its dependency was made to suffer also. This is no longer possible when puberty begins. The balance is redressed, but the pendulum having swung stays at the other end of its path. The body insists, if not on a full share of food, at least on distributing what it gets as it pleases and sees fit.

At this point, also, the cases appear to begin again to group, those in which neurasthenia has begun and progressed less or more and those in which it begins only when the demand is made upon the reserve of nutrition. In the first group the progress of the mischief is most insidious, because at first the demand increases very little and is quite satisfied by the amount which can be diverted from the other various consumption, yet unless the large amount made use of by the brain is in some measure lessened, and that quickly, mischief of serious sort will follow. Unfortunately nothing is done until some catastrophe makes longer blindness impossible.

Emaciation a Note of Warning

But in the other case the malnutrition does not begin until the demand of the new development makes itself a ponderable quantity in the food-nutrition equation. Then emaciation and loss of weight is again the note of warning, and again we recall the dictum before referred to. Tuberculosis having been eliminated, no acute disease being in evidence, emaciation stands as proof of neurasthenia.

These cases may be diagnosticated in time to check them, if the guardians of the youths are warned and also intelligent, sufficiently intelligent to really understand the warning. But no treatment will be of much use unless the guidance of Nature's impulse be accepted and the demand of the nervous system upon the total of nutrition immediately checked.

The Method of Treatment

In addition to a most generous diet the following treatment is suggested: The careful cleansing and persistent disinfection of the intestinal tract by the use of the means known to us all, giving sulphocarbolates or naphthalin, as shall prove most to the taste of the patient and best adapted to his stomach; using effervescing salts to insure the emptying of the bowel, best done by giving (an hour before rising) two heaped teaspoonfuls of the Abbott effervescing saline, giving preference to it over all

others for reasons given elsewhere. Having thus insured a clean and empty *enteron*, make use of it to obtain the reaction of such drugs as may be needed. In this juncture the physician will find nuclein and lecithin of use, if my observation may be trusted, but useful as food, not as thaumaturgic drugs. Nor will it do to omit less far-fetched remedies. General nutrition must be stimulated. Give tonics, but be guarded in the use of any product of nux vomica. It produces rapidly great apparent improvement but the result is an illusion.

Bilein has in the experience of many proved of greatest use, but nothing will do in every case or prove useful constantly in any case. Constant exercise is less useful than in the cases before puberty, and while nothing has been noted in this respect by others, I seem to myself to see mischief done by anything which can be twisted into an erotic significance; and avoid solitude, protect your charges from it, for to them 'tis filled with Gorgons and Chimeras dire.

The Period of Puberty Among Women

Among men also vanity may appear a motive, but at this age it takes the form of an uneasy fear of defect; and in the sense of a desire for applause, it is seldom the impelling motive to that overwork which ends in nervous waste and over-doing, true forebears of disease. Seldom active among men, vanity, the desire for applause, is the true *radix totius mali* among their sisters.

Among women this period, especially when prolonged, and above all in those cases in which the maternal (sexual) impulse is strong and the true guiding instinct, presents not only many opportunities or occasions for those wasting struggles between the natural instincts and the will, whose direful result is the disjointing of the symmetrical development, but in our present civilization exhibits to us an enormous number of cases in which the condition is due directly to the environment. In a word the condition is frequently produced by a struggle in which the dismal ending is due not to the struggle but to the environment of the struggle.

We may therefore, regard the neurasthenia of women and girls during the period of puberty as due to continued strain and wear and tear produced by certain well-defined causes acting together or consecutively during considerable periods of time. We are also justified in saying that during a large part of the existence of this condition more than one cause may have great influence, but that the influence of sex is never unimportant. We may even distribute the action of these causes, saying that one cause is more influential in a given environment than another or we may say one cause is more efficient, or to be feared, in one environment than in another.

Thus, during the period of school life, vanity, the desire for praise, as impelling the child to efforts and attempts beyond the nutrition capacity, as has been discussed in reference to childhood, continues to act and powerfully. This influence can be seen very readily among the more famous pupils in some private schools as has been referred to in respect to their brothers. In the coeducational colleges it is seen acting in common with other causes and sometimes alone; it is also seen acting powerfully in young ladies' schools, but in those under the inspection of the Board of Education and modern influences generally it does not find as free an opportunity as it once found in such environment. Still it exists, actively weakening the health.

Unequal Development of School and Working Girls

A lady physician, recently deceased, is reported to have said in a lecture to the young ladies in a well-known school for girls, that if they divided the total available vital force in their bodies into five parts, two were expended volitionally, two in the development of the organs of sex and only one in somatic nutrition at large, which she said included both repair and growth, She also said that in a large workshop which she had just visited, where girls of the same age were actively employed, only

one-half part was expended in the development which could be described as volitional, and allowing that the sexual development claimed the same amount, two-fifths, there remained two and one-half parts to be expended in somatic development, or practically one-half the total force of the body.

In reply to the question, "Do you consider that as a rule young women working in a factory are in better health in respect to their nervous systems than we are?" she is said to have answered: "Incomparably so."

In Barnard the cannibalism of the sexual and higher nervous systems can be distinctly seen, differentiated and estimated as distinct items, if we are to accept statements made by certain persons who have devoted much time to the elucidation of this question; and this goes on notwithstanding the care of the members of the faculties of the various schools, all of whom are anxiously on the watch in order that any case becoming sufficiently serious to be detected may be surprised at once and brought to a reckoning before any serious mischief is done.

Neurasthenia of Young Women in Offices

Among the young women employed in offices, especially those coming into intimate relations with men, specifically in the relationship of stenographers, and such relationships as that of the private confidential secretary, cases of neurasthenia are frequently seen. In these cases the severe mental strain has something to do with the condition produced, while the changed conditions of life in some cases may have also large influence in women of low physical standard.

But it is not women of low physical standard among this class who present the worst cases of neurasthenia; very far from it. In the experience of some young women unusually handsome and well developed in figure, if not in face, holding with satisfaction to herself and her employer a position of trust and responsibility, some of those constantly recurring accidents of life will have occurred which, it may be, have forced upon her extra responsibility and labor. Frequently the crisis is passed and she has played her part so as to win all manner of praise from her employer. Then something goes amiss, some trifling thing "utterly upsets her," a violent hysterical fit follows, a physician is sent for and the young woman is hurried to her home or to a hospital. Reaction follows but not recovery, and her anxious employer insists upon the consultation of some great physician, who carefully determines the cause and says, and correctly: "Neurasthenia, the result of long-continued nervous strain." The nature of the strain he does not say, but in response to questioning he may say: "The strain is not needfully mental."

This is no fancy picture and the details of a typical case are in my keeping. But how was the condition produced? Was it the daily task? The suddenly demanded and concentrated exertion of intelligence and will? Not at all; it was the continual dropping which had worn the stone, the almost or quite unconscious resistance against a continuously acting cause, the resistance of her will to the attraction, inchoate, nameless, exerted upon her highly organized and distinctly feminine sexuality, by the magnificent manhood of her employer.

The Effect of Unconscious Attraction

If she was conscious of the existence of the attraction she would have said that she "admired" him, but that there was any sexual attraction she would never have suspected. Still less would she have supposed that she had "been in love" with this man for months, maybe for years. Probably she does not recognize to this day the true meaning of her intense anxieties, her continual fretting, her inexpressible content when she was again able to take up her duties.

It is probable that if this young woman was at all conscious of the man's attractions for her, she believed that the secondary manifestation, that is, her anxiety about the business, was really the trouble, the suggestion that her anxiety about the business was secondary and caused by any personal interest in her employer would

unquestionably have been met with merciless scorn, while the suggestion that her interest was sexual in its origin would have been taken as a personal insult, yet beyond all doubt and cavil this was just the exact state of the case.

The Childless Wife

By far the most common type is, as has been said by others innumerable times, 'the childless wife." So truly is this the case, so much has the fact impressed itself upon the student fraction of the profession that one writer has said:

"It (neurasthenia) is Nature's protest against the childless condition of the married woman." In which connection it is worth while to remember the statement made by a Boston surgeon at the recent meeting of the A. M. A., and the replies he received. Having said that nineteen-twentieths of the Boston cases of neurasthenia were childless married women, a New York physician answered: "That is a small estimate; in New York ninety-nine and a half per cent of the cases are from this class", and another man who is well informed on the question added: "Practically all the cases are in that class." Some men appeared to be much surprised but surely there was no cause for their astonishment, and to their discussion a few items might have been added not uselessly.

Granted that they used the facts as well as the facts could be used methinks a few more facts might have had pointed application. They might have added, if they knew it, that while the Hebrew maiden is no stranger to the torments of neurasthenia in its most aggravated form, the Hebrew matron knows it not at all. They might also have added that the Hebrew wife stands out religiously for her rights, and while the Jew is perhaps the least continent of men he would count himself forever disgraced did he cross the threshold, literally or metaphorically guarded by his wife's slippers. The Hebrew wife counts herself blessed if she has many children, and one observing a group of Hebrew matrons easily satifies himself of the condition of their nervous systems.

This subject is one which can be discussed only with difficulty because the facts are such that plain statement becomes loathsome; but who among us does not know that to a very great fraction, too great a fraction, of our countrywomen, marriage is *not* looked upon as the open gateway to motherhood; wifehood is counted to bring many privileges, but among the possible incidents of married life motherhood does not reckon as a privilege, or very seldom. Monogamy implies either of three possible solutions, continence on the part of the husband, worse than incontinence on the part of both the husband and the wife, or adultery by the wife's connivance and suggestion or without it. Knowing perfectly well that the only excuse for their relationship as husband and wife is the reproduction of their race, they deliberate as to the means of "avoiding the penalties" of the marriage relation while seeking to enjoy its privileges to the full.

What is the condition of life in which a wife thus positioned lives? How does her position differ from that of those whose very shadow she pretends to feel to be contamination? If having acquired knowledge of those unholy arts, the wife, of the name unworthy, makes use of the practices of the brothel, why should she hope to avoid the penalty of these practices?

What of the man, the so-called husband, who it really appears proven has no shame in bringing to his own bed, which should by him at least be counted sacred, the very precautions he uses when in the arms of a common prostitute, a woman of the town? Is it any wonder that such a husband and such a wife (Heaven, save the names!) pay the penalties of their deeds?

The Penalty an Exhausted Nervous System

Excess, or that which would be the very fiercest excess were it not something far worse, causes a waste of nervous energy, which no man nor woman can long endure and escape the penalty. The penalty is paid in an exhausted nervous system, which

gives way to the strain put upon it, gives way suddenly in the most of cases, in a dozen, twenty it may be, ways at once. There is no need to attempt descriptions, we all have seen and shuddered at them often, yes too often.

In his book on Medical Jurisprudence Orfila makes reference to this state of things: "Nature intended the commerce of the sexes for the reproduction of the individual and the continuation of the race. When made use of for other purposes she has devised a penalty and exacts it ruthlessly." His dementia from exhaustion is only an exaggerated neurasthenia.

There is no use in extending the description; the causes given and the types described include all but a very trifling fraction of the cases, and indeed this fraction can usually be reduced to one or the other of these types by extending the analysis.

But what can we suggest or direct of treatment to aid in cure? Can we promise effectual ransom to those in the net of this condition? Is there any rational hope of redemption, of return to health of body, and peace of mind?

Yes, in most cases. Change in environment will do much, in many cases a happy, *consummated*, marriage, ending in motherhood, will do still more; but the cause of the waste, the consumption of nerve force beyond the nutritional capacity, must be checked. The somatic index must be increased and the special relation of the sexual organs both to the somatic development and its nutrition must not be forgotten. Is your patient a virgin girl, in age from seventeen to say, as the extreme limit, twenty-five years old? Marriage to the man she loves, if that man is physically fit, mentally and morally worthy of such trust, will usually be a means of cure so sure, so rapid, so complete, as to make the cure appear a miracle.

In other cases, to suggest this expedient is to insure defeat and sometimes to court destruction, yet it has been known to be efficient in the most unlikely cases. But naturally such very fortunate cases are also very few. In any event the intimate companionship of the cause which thus disturbs the equilibrium of the nervous system must end. If gratification of the sexual instinct is impossible, then the cause of the excitement must be removed. Surely this should be sufficiently obvious to anyone. Obviously, if the theory of causation which the writer has advanced,that the disease we call neurasthenia is primarily nutritional malbalance and can be cured by redressing this balance, and in this way only, then the problem of treatment is the problem of redressing this balance and this only. If the theory advanced as to origin, that by some cause, it is immaterial what one may be acting in chief, the distribution of the food supply has failed to correspond to the demands, then this must be redressed.

The Importance of Rest.

Personal observation on some almost desperate cases has convinced me of the importance of rest, not rest partial, but rest of the most absolute sort, until observation shall have enabled us to determine the special directions in which the rest may safely be diminished.

Sometimes it seems almost impossible to determine which most is in need of nutrition, the somatic system or the intellectual, but it is always well to begin by attempting at least the improvement of the bodily health in detail. If the invalid is unmarried and is in such circumstances as to make it possible, isolation in some quiet farmhouse in which she can obtain the physical comforts of city life yet be relieved of the irritation of city noises, will be found of use.

Besides rest and ample feeding the present opinion in the large cities seems to be to say that little can be done. The discussion in Boston limited the best that could be done to entire rest and over-feeding. The treatment advised was confined to the abundant use of the most nutritious but not stimulating diet, and only such drugs were advised as might be needed to keep the refuse from over-loading the system's ashpit.

My own opinion leads me to judge that more is possible, much more. Having

obtained that satisfactory condition of the various organs concerned in removing refuse matter from the blood, ascertain if the ordinary foods are properly digested. Specially determine the amounts of the bile pigments excreted and their condition, the total nitrogen and the amount of phosphorus excreted as compared with the *ingestum*. Give nuclein and lecithin, to be the source of the needed supply, and attempt to check the tendency to drowsiness which may appear, by insisting on sufficient sleep. Do this with hyoscine or hyoscyamine if possible. Do not use bromide of potassium; if large doses of bromine are needed use calcium bromide. Usually camphor monobromide in very small doses repeated hourly will check sexual excitement, for which the physician should be always on the watch, and thus relieving nervous tension insure slumber at once. Sexual excitement may attain to an extreme degree without the patient being conscious of it, and I have seen a cultured woman, but one whose sanity was endangered by nervous exhaustion, unconscious alike of the act and its reason, with her ruby lips caress the face of a marble statute, saying softly to herself the while: "You dear pretty boy!" It was a perfect case of unconscious personification.

In a woman over twenty-five the sex-instincts are often as it were maternal, even in those who are not only not mothers but are yet maids. It is this instinct which prompts these women to fondle the babies of their friends; but be careful how you permit it, a tragic ending to such caresses is always impending. But if the maternal instinct fixes upon a somewhat older child encourage it—often it proves a means of cure.

One specialist has advocated the use of the extract of cannabis indica. Beware! the advice is bad, the drug most dangerous! Never use it; it cannot possibly prove useful and may do an almost infinite harm. Even a single dose has produced a permanent delusion. We have in gelseminine a powerfully effective, manageable and safe sedative to the sexual impulse, which does not at the same time lower nervous vitality, impair nutrition or interfere with digestion. Closely associated with this is cicutine hydrobromide. From these two remedies we obtain all the benefits that can possibly he secured by drenching the system with bromides.

Such are some of the conclusions forced upon me by better than twenty years of careful observation, but so limited is the space at my disposal that I have passed one side much whose extreme importance I fully recognize, but which is less important than the facts made note of. I can assure my readers that no matter how long they may give an undivided attention to this study, they will find that its importance grows until it represents so large a part of nervous troubles as to personify the whole.

In the development of the individual life there is yet one more period when neurasthenia plays a part, when the sexual life has been fully rounded out and the woman is a happy mother. In this stage of life nutrition is still the cause and the clue, but the body no longer is the claimant who must be satisfied. The intellectual faculties are now those paramount and their demand may make the body an interesting victim. Here again we find a single type dominating all the manifestations of the will, the Ego, and as the maternal, sexual, instinct was the guide in the age of puberty, and vanity the compelling motive in an earlier one, so now in this which follows, ambition, personal or vicarious, will be found to dominate and enforce its requirements.

But it is well to remember this, to bear in mind the precept that in this period, we have just been considering, is found the exemplification of all that is implied in the lines which follow:

> "Oh, for an hour of heedless joy,
> This shall our pastime be,
> Laughter and singing and dancing, dear boy,
> The reward of my pleasure! Me!"

This mental and moral poise expresses the healthy development of this period, any variation either produces or is produced by neurasthenia.

THE PATHOLOGY AND STAGES OF EPILEPSY

The relation of the vasomotor system to the causation of the paroxysms of epilepsy. What may cause the vasomotor disturbance

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UP to the present time the pathology of epilepsy has not been definitely determined. Theories and hypotheses have been advanced and have come to us from various sources and from different writers, but in summing up their observations we can derive but the partial conception of the pathological condition of the arterioles of the cerebral cortex.

The fact that contraction of the cerebral arteriole takes place during seizures does not fathom in any sense of the word the entire pathology. Each successive stage has a separate one. Heretofore, no one has ever taken the trouble to scientifically work out, through observations of the different stages of epilepsy, the exact mental phenomena.

Among animals, the most common type to suffer from epileptic conditions are cats. They exhibit all the symptoms in successive stages that a human under the same circumstances would. Of course cats as a rule take the ambulatory form, but not always; however, the initial pathological condition is the same in any form, namely, arteriole contraction, though to a greater or less degree, depending upon the severity.

To get at the foundation and fundamental principles of this obscure pathology, we must necessarily secure the brains of animals during a seizure, which is easily done, although a different brain is quite necessary for each successive step, to show separately and distinctly the different pathological changes that are brought about during this mental phenomenon throughout all the stages of the disease and the separate classifications of the same. For instance, in grand mal there is a great amount of fluid in the ventricles, and naturally more pressure and vasomotor disturbance, hence a more severe seizure than in petit mal.

The essential feature, *sui generis*, in the pathology of epilepsy, all other features being subsidiary or organically causal, is in the alternating state, irritation and paralysis of the vasomotor mechanism of the brain and allied nervous system, but chiefly the brain.

Epilepsy itself is a functional vasomotor disease, an alternating vasomotor condition of transitory paresis or paralysis and irritation, the irritation causing contraction of the arteriole supply of the convulsive area involved and the extreme ventricular dilations, caused by excess of cerebrospinal fluid in them, producing coma and comatose symptoms.

A trauma or a blood toxin (autotoxin or chemical-like alcohol, camphor, etc.), or a peripheral irritation, intra- or extra-intestinal, tapeworm, lumbricoid fistula in ano, etc., causes first a paralysing impression on the vasomotor mechanism of the brain, blood supply or on the heart (cardiac epilepsy), causing excessive pouring out of cerebrospinal fluid into the perivascular spaces and ventricles of the brain.

The distended ventricles or perivascular spaces by pressure give rise to the percursory aura, visual, auditory, gustatory and other sensory forms, according to the part first feeling the pressure before coma comes on from excessive pressure.

The excessive pressure with the coma or comatose states irritates the vasomotor centers of the brain, causing arteriole contraction and spasm of psychomotor centers and of parapsychic centers of the gray cortex, causing psychic epilepsy (vertigi-

nous epilepsy). This arteriole contraction, the result of primary distention and the excess of cerebrospinal fluid in the ventricles, causes the shutting off of the excessive cerebrospinal secretion and the return of the brain to its normal state after a period of more or less prolonged sleep, according to the degree of vasomotor anemia induced, the absorption and redistribution of the excessive fluid of the ventricles beginning again with arteriole contraction which, after the ventricular distention and in consequence of it, first took place.

The cause of the spasmodic paroxysm is also the cause of the removal of the first cause of the epileptic condition, viz., the vasomotor paresis and consequent pouring out in excess of the interventricular and perivascular space fluid into their natural receptacles in the brain. Whatever condition of the organism may cause first a paresis or paralysis of the vasomotor mechanism so as to permit excessive filling of the ventricles to the point of such degree of distention as will bring vasomotor irritation of the brain arterioles, will develop an epileptic or other convulsion.

A trauma or toxicity of the blood, a peripheral irritation apparently transmitted from the surface or from an internal organ will do the same (gastric, uterine, rectal, etc.) The recurrency which characterizes epilepsy is due to a peculiar morbid vasomotor impressibility acquired by frequent repetitions and hereditary impressibility.

All facts in pathology sustain this view and need not be detailed. No epileptic brain where death came in the status has ever been found with undistended ventricles, and all known causes of epilepsy have produced this state of brain. Inebriety, general paralysis, cephalic traumatism, toxic influence organically generated or taken from the animal, vegetable or mineral kingdom, and psychic influences have produced this state and phenomena, alternating of the vasomotor nervous system whenever epilepsy or epileptoid symptoms have resulted. Petit mal is a lesser vasomotor paresis and lesser arteriole contraction involving the area of consciousness.

Jacksonian epilepsy is the same, involving one or a limited number of psychomotor centers. In petit mal the attack stops short of the psychomotor region and profound unconsciousness.

The inherent or predisposing tendency of arteriole contraction found in grand mal is greatly lessened in petit mal, for the seizure falls short of the psychomotor area, the inhibitory centers lose their identity, and partial or complete paresis ensues inversely as the profoundness of the seizure and vasomotor constriction which inhibits the arteriole blood supply to the brain, thus ushering in the paroxysm, and the succeeding vasomotor relaxation which finally suffuses the brain. The symptoms vary according to the difference in successive involvement of area, for instance, the difference in the auræ as the different centers are touched by the malady in the beginning of the attack; and so also do the symptoms of Jacksonian epilepsy appear differently, according as the different centers are attacked by vasomotor constriction. Jacksonian epilepsy is a limited psychomotor epilepsy without involvement of other psychic areas of the brain, so in order to show the pathological changes in tissue of the vasomotor nerve centers, it has been necessary to select specimens that show the condition of each tissue change during a seizure throughout the whole category of epilepsy.

The coarse or gross pathological anatomy, as I have mentioned before, may be any lesion that would alter the vasomotor movements, aneurismal, embolic or thromboid, or traumatic pressure.

In presenting this paper, it has been my purpose to show that each epileptic stage has a distinct pathology, and the entire category or classification of epilepsy, including the psychical varieties, has one common pathology or gross structural change, whether idiopathic or organic, has to do largely with the movements of the centrifugal and centripetal mental forces as we find them in the psychical equivalence of epilepsy, dual consciousness, obliviousness and allied states of mental eclampsia.

Department of
SURGERY
GYNECOLOGY & OBSTETRICS
WITH A REVIEW OF
CURRENT LITERATURE

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THE SURGICAL TREATMENT OF CARBUNCLE

When should excision be practised? When incision? The technic. Limitations of phenol injections in carbuncle

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THE local treatment of carbuncle resolves itself into a vigorous fight against a virulent infection, pyogenic and pathogenic in character, and so pent-up in the deeper structures of the skin, with continuous spreading and sloughing, that access to the infection by either medication or knife is difficult.

It is advisable, whatever treatment is to be pursued, to give the patient an anesthetic, preferably gas. The patient being asleep the skin is rendered aseptic rapidly, first with ether, which dissolves the fat and exposes the germs, and second, with Harrington's solution, which is kept in contact with the carbuncle and surrounding skin for at least two minutes.

Excision is the Ideal Treatment

If the carbuncle is situated on the extremities or on the body of the patient, excision is the treatment *par excellence*. A circular incision, half an inch to an inch away from the infected area, extending deeply and including the subcutaneous fat, will get rid of the carbuncle with "one fell swoop." In four out of seven carbuncles treated in this way, primary union was obtained.

Carbuncle on the neck and face, especially on the lips, is frequently so extensive that excision is impracticable. In such cases the carbuncle must be drained by free incisions; if not very extensive, by a simple crucial incision. In making incisions care must be taken not to infect the surrounding healthy structures with the knife. The incision should be made from the non-infected skin to the center of the carbuncle with an aseptic knife. A second knife is used to cut through the opposite border in a similar manner. A new, clean knife should be used for each incision. A simple crucial incision is usually insufficient, for the brawny, infected border will be left undrained and deep infection usually takes place. Harrington's solution is poured into the incision and then washed off with normal salt-solution, after which an antiseptic compress is applied and left undisturbed for six hours.

By this time the oozing of blood has ceased and a persistent course of cleansing of the wound is undertaken. For three days the wound should be cleansed every three or four hours with antiseptics. Gauze soaked in a 10 per cent solution of iodoform in glycerin furnishes an efficient and suitable

packing for such a wound; it is easy of application and does not hurt the patient when it is removed. When improvement in the wound is noticed, the time between the dressings can be lengthened until eventually it is only dressed once a day or every other day.

Treating Carbuncle of the Lip

In treating carbuncle of the lip, the incision should be made on the mucous membrane beneath the lip margin, the patient being anesthetized. The incisions should be parallel and extend from the edge of the lips upward and inward and they should be quite close to each other. Then the mouth is kept constantly packed with plain gauze to prevent ingestion of bacteria and pus. Iodoform (or some of its substitutes) is used in connection with the gauze to be in contact with the incisions. Three nurses should be on such a case and have eight hours' service each, and the dressings should be changed every hour.

I have on several occasions injected pure phenol (carbolic acid) into the infected follicles, but found this treatment very unsatisfactory, excepting at the commencement, when the infection was very limited. As a preliminary to incisions through the septic mass, an injection of phenol may be employed, incisions following immediately.

RECTAL DISEASES IN GENERAL PRACTICE

How to examine the rectum, and the necessity of accuracy of diagnosis. Successful treatment of common rectal ailments by the general practician

By IRA C. YOUNG, M.D., Saint Louis, Missouri

DURING the past ten or fifteen years, the attention of the profession and the laity has been so constantly directed to treatment by specialists, in every conceivable department of medicine and surgery, that I felt it would be a change to think of something for the general practician; and I shall attempt to justify his presence among us by claiming he can still be of service in the treatment of a few of the diseases of the rectum. I say a few of the diseases of the rectum, not that I feel that the general practician's field is limited to those I shall mention, but because it is impossible, in a paper of this kind, to do more than superficially consider a few of the diseases of that important organ.

Insist Upon Thorough Examination

When a patient consults a doctor, complaining of trouble with his rectum, one should not accept his ready-made diagnosis that he has "a bad case of piles," which he will almost invariably give, or attempt to make a diagnosis from the subjective symptoms and prescribe one of the many ointments or suppositories recommended in the text-books, which may be good in its place, but in all probability is not the proper treatment for the patient in hand. One should insist upon a thorough, ocular and digital examination of the anus and rectum before attempting to prescribe. If the patient will not permit an examination, he should be told that he cannot afford to be treated blindly and that positively he can get no medicine until he will submit to an examination.

It would be just as scientific, in most instances, to prescribe a pile-ointment for a patient, for no other reason than that he is a merchant, as it would be to prescribe a pile-ointment for a patient because he claims he has a bad case of piles, or says that he suffers severe pain in the rectum, or anus, either continuously, or during or after stool.

No symptomatology is of any value in making a diagnosis in diseases of the rectum or anus unless a careful local examina-

tion is added. To make such an examination one should place the patient in Sims's position, on a lounge or table, in a good light, separate the buttocks and carefully inspect the anus; if the patient suffers from fissure, external hemorrhoids, prolapsed internal hemorrhoids, prolapsus, fistula with an external opening, or pruritus, they will usually readily be made out; but one should not stop with this examination, for frequently the patient has some trouble within the anal or rectal canal, which perhaps has an etiological relationship with what has already been found.

So the index finger must be lubricated with vaseline or cold cream, paying particular attention to filling in the crease about the nail, and introduced into the rectum; thoroughly palpating everything within reach, including the prostate in the male, and the cervix, uterus, tubes, and ovaries in the female; with the finger, after a little experience, one will readily recognize an ulcer, internal hemorrhoids, fistula, polypus, or stricture.

After learning all possible through an examination with the finger, it is a good plan to throw a little oil into the rectum and take a rectal speculum, Cook's, Kelsey's, O'Neil's, Brinkerhoff's, Kelly's, or a small conical one, sterilized by boiling, lubricate it, and slowly introduce it into the rectum, giving the muscles time to relax, remembering that all movements about the rectum must be easy and gentle to prevent spasmodic contraction of the sphincter; a cold speculum must never be used. With the speculum it is possible to verify the diagnosis made with the finger and often get additional information necessary for a proper and complete diagnosis.

Fissure of the Anus

There are three recognized ways of treating fissure of the anus: One is to treat an ulcer here as one would elsewhere, by simple stimulating dressings of charpie, covered with unguentum hydrargyri ammoniati, balsam of Peru, or pure ichthyol, as recommended by Dr. Emory Lanphear of St. Louis; or by the application of pure carbolic acid, without the use of a speculum, if the fissure can be completely exposed to view, if not, with a speculum. One ought to use a small speculum, as the sphincters are very irritable; and before inserting it cocainize the parts by the application of a ten per cent solution applied on cotton; inserting the speculum, well oiled, and applying the pure acid with a probe, tipped with cotton, drawing it through the fissure several times until it has turned white. Two or three applications of the acid will usually suffice, after which the simple treatment with stimulating dressing above mentioned will hasten the cure.

A Better Method of Treatment

Another and better method is to insert a small speculum, as above described, bathe the fissure with a ten per cent solution of cocaine, inject a few drops of a weaker solution of cocaine, directly under the fissure, until all sensation is abolished, and incise the sphincter sufficiently to put at rest its muscular fibers which underlie the ulcer, and apply the simple stimulating dressings mentioned above.

The third and best method of treating fissure is to rapidly divulse the sphincter with either the fingers or mechanical dilators, under a general anesthetic, until the fibers just begin to give way; this puts the muscle at rest and the ulcer invariably heals.

Ether, chloroform, or nitrous oxide gas may be used as a general anesthetic in these cases. Nitrous oxide is preferable for the reason that it is absolutely safe, meets every requirement, and after its administration the patient can go about his business at once. As a rule patients do not fear or object to taking "gas" as they do chloroform or ether, because they are more or less familiar with it from its frequent use in dentistry.

Hot cotton compresses should be firmly applied to the anus for about fifteen minutes after divulsion.

Should the patient suffer from internal hemorrhoids or polypi in addition to fis-

sure, the divulsion of the sphincter necessary for the treatment of those conditions cures the fissure, and the removal of those conditions must be done before the fissure can be cured.

I can see no reason why the general practician should hesitate or fail in the treatment of uncomplicated fissure.

I mention ischiorectal abscess simply to emphasize the importance of immediate incision, which will provide for drainage, the cut radiating from the anus like the spoke of a wheel, after which the cavity should be cleaned and packed with iodoform gauze; and to call attention to it as being the etiological factor in *fistula in ano*. I take it for granted that every general practician treats these cases in this way. Why shouldn't he? The specialist can do no more, and the patient should not be allowed to remain in pain, with the pathological process advancing, waiting for a specialist.

The Treatment of Fistula

Unfortunately fistula, while not painful as a rule, often severely tries the skill and ingenuity of the most expert rectal surgeon, especially when composed of many branching sinuses; but fortunately the great majority of them are not of this variety and many of these yield to very simple treatment.

The most important part of the treatment of fistula is prophylactic, which is prompt treatment of the abscess, which always precedes, and will surely cause a fistula if not properly treated.

The ideal treatment for fistula is to lay open all the fistulous tracts with the knife on a grooved director, after dilating the sphincter, as described in all the standard text-books, and curet out all diseased tissue with a sharp curet and trim the edges of the wound. In most cases the general practician can do this, as well as the specialist, if he will only keep a cool head and try.

Failures most often result either from not finding all the sinuses or not finding the full extent of some of them.

When there are no branch sinuses and the tract is a short, superficial one, permeating between the sphincters, we may be able to do the operation under cocaine or nitrous oxide anesthesia.

But many patients will not submit to a general anesthetic, such as is usually necessary for an operation for fistula. Shall we leave them to suffer because of their fear, which we know is, to a slight degree at least, well founded; and to fall into the hands of some quack who may cure them by simpler means, which we might ourselves have done?

I would suggest in such cases the injection of tincture of iodine, pure phenol, or a solution of silver nitrate, 60 grains to the ounce, as may seem best indicated, after the fistulous canal has been thoroughly syringed with dioxide of hydrogen, twice a week. An occasional irrigation with a 1 to 1000 solution of bichloride of mercury will aid in this line of treatment. Also, it is essential to keep the canal lightly packed with a strip of iodoform gauze.

I remember one of our most distinguished rectal surgeons speaking of a case of fistula which had been operated upon several times with the knife in the hands of a very competent general surgeon, without success, which was cured by two injections of tincture of iodine. Think of the reputation and dollars a quack would have made with such a case to advertise and refer to!

Use of the Fistulatome

Mathews of Louisville has devised a little instrument called a fistulatome made on the same principle as a urethrotome, which he inserts to the bottom of the fistuluous canal and draws out after opening the blades in such manner as to completely divide the infiltrated tissues down to sound tissue on two sides of the canal; as a preliminary step he dilates the external opening with a laminaria tent, which provides for good drainage; this instrument is undoubtedly a most valuable one, and the method simple, painless, or practically so, easy of application, and will give excellent results in a great many cases.

Personally I do not like the ligature as a method of treating fistula; but we should not forget its value in the absence of something better; many able practicians speak highly of it.

Careful attention to cleanliness and drainage alone, will result in cures in some cases of simple fistula.

If near the margin of the anus one should cut polypi off with the knife or scissors, or use the snare. If higher up in the rectum it is necessary to ligate the pedicle and cut them off. Should a polypus be mistaken for an internal hemorrhoid and the injection-treatment be used, no harm will have been done, and it will most probably cure the case.

External and Internal Hemorrhoids

We recognize two varieties of external hemorrhoids: the skin-tags or cutaneous excrescences and the clot or thrombotic; a distinction which is important to remember, as the treatment differs according to variety. I have never been able to get any satisfaction from palliative treatment; neither do I believe in waiting for the inflammation to subside before operating. In my experience the pain following operation is not as great as the pain of the inflammatory process; and the patient will be well and completely relieved of his trouble in less time by operation, than it will take to relieve the inflammation by palliative treatment. All concede that with palliative treatment recurrence is certain. The pain from inflamed external hemorrhoids is so intense that patients will readily consent to the operative measures necessary, if we ourselves do not frighten them by using the word "operation" with too great emphasis.

In the cutaneous variety one may throw one-quarter to one-half grain of cocaine under it, wait five or ten minutes, catch the tumor at its base with a pair of pronged forceps, draw it out firmly, and with the knife divide the skin all around it up to the mucous membrane; then tie a stout silk ligature tightly around its base and cut off the tumor close to the thread.

In the thrombotic variety one must throw the cocaine under it, and lift it up with pronged forceps as in the other variety, and completely excise the tumor. The wound will heal quickly and, it is needless to say, the trouble is eradicated.

If one only slits them open and express the clot the redundant skin along the margin of the wound will give the patient annoyance.

Of all the varieties of internal hemorrhoids which have been discussed, perhaps less has been said of the capillary than any other, though they cause sudden and severe hemorrhages demanding immediate treatment more often than any other variety. They are little, soft, spongy masses, situated on the mucous membrane, often so small that they are difficult to find, except for the flow of blood from them. We rarely see them until called on account of the severe bleeding.

Such cases should be treated by dilating the sphincters and applying the cautery, or by catching the little mass with a pair of forceps and tying it off with a stout silk ligature.

All other varieties of internal hemorrhoids may be treated in the same manner, as one may prefer, either with the ligature, clamp and cautery, or by the injection of a strong solution of carbolic acid.

The ligature, after the method of Allingham, with which all are familiar, is the favorite method with most general surgeons and rectal specialists, in all cases in which the patient will consent to general anesthesia (with chloroform or ether), but we again meet a certain number of patients who cannot, or will not, take ether or chloroform. In such cases, and I believe in all cases, we may with greater satisfaction both to ourselves and to our patient, use the injection treatment.

The Injection Treatment of Hemorrhoids

I am aware that this method has been most severely condemned, as being the method of the "quack," as being "unsurgical," as being dangerous, and as being almost everything else than a proper treat-

ment; but to my mind the strongest proof of its value and safety lies in the fact that it has been so very extensively used by the unscientific quack with a record of so many cures, and so few bad results.

Had the method been born in the light of present aseptic and antiseptic methods even those few bad results would have been minimized.

To get results with this method we must recognize it as a scientific surgical treatment and devote that same care to every detail of the technic, that we would were we going to do a laparotomy.

The first step in the technic is to divulse the sphincters under nitrous oxide; then apply hot cotton-compressers to the anus for ten or fifteen minutes; let the patient rest for three or four days until the soreness of this operation has subsided; he will be much more comfortable after devulsion; one need not fear pain, hemorrhage, strangulation or sloughing as complications if the sphincter be divulsed so one can easily reach the pile tumors without discomfort to the patient, when ready to begin the injections.

Technic of the Operation

When the patient returns for treatment have him lie in Sims's position, on the side opposite that to which the pile to be injected is attached; gravity will then aid the flow of the fluid down into the pile tumor.

Wash the anal skin with soap and water, follow this with alcohol, then with 1-2000 solution bichloride of mercury.

Introduce a small Brinkerhoff's or Martin's small conical speculum, swab the surface of the piles with one per cent solution of lysol, or other antiseptic as may be preferred, and select the largest hemorrhoid for treatment. Then inject from three to ten minims of a fifty per cent solution of Calvert's pure carbolic acid crystals, liquified by heat, in purified sperm oil, into the center of the pile; the quantity of the fluid used depending upon the size of the tumor; inject drop by drop until the tumor turns grayish, using a long needle made for that purpose, or an extension barrel on an ordinary hypodermic syringe.

One should always sterilize the syringe and needle by boiling before using them.

Wait a few minutes before withdrawing the needle after sufficient fluid has been injected.

Insert into the rectum a suppository of ichthyol, 5 per cent. Have the patient insert one of these suppositories after the morning stool and on retiring at night.

Inject only one pile at a treatment and make treatments from three to seven days apart; also see that the patient's bowels move every day.

From three to ten or twelve injections usually result in a radical cure.

Objections and Advantages of this Method.

The only objection I have found to this method of treatment is the length of time necessary to cure. But on the other hand the patient is not detained from business, does not suffer the pain which always follows all other methods, and to his mind is not subjected to an operation, which is quite a factor with him.

Neither have I ever met any unpleasant complications or sequelæ; I attribute this to the preliminary divulsion, proper attention to antisepsis and the use of a strong solution of the acid, at least fifty per cent; were I to change my solution at all I would prefer to use a stronger, rather than a weaker one.

HAND CLEANSING FOR OPERATIONS

Too little care is given to cleansing of the hands, even by competent surgeons. The technic is carefully described, and thoroughness insisted upon

By EMORY LANPHEAR, M.D., Ph.D., LL.D., St. Louis, Missouri

Chief Surgeon, Woman's Hospital Association; formerly Professor of Surgery, St. Louis College of Physicians and Surgeons

NOT one physician in a thousand prepares his hands properly when getting ready to assist in an operation or to do major work himself in emergency; not 50 per cent of the men engaged chiefly in operative surgery are as careful as they should be in their attention to the hands of themselves and their assistants. Entirely too many men content themselves with three or four minutes devoted to preparation of hands.

The man who occupies less than twenty minutes in efforts to secure hand-sterilization in a capital operation (not emergency) should be deemed guilty of manslaughter if the patient, previously non-infected, die of sepsis.

This is not the wild statement of a "crank" but the declaration of a surgeon who in a quarter-century's work has seen entirely too many lives sacrificed by the criminal carelessness of ignorant or thoughtless so-called surgeons or assistants.

Solutions to be Used

When a minor operation is to be performed careful scrubbing of the hands and immersion in sublimate solution is all that is required, unless the hands have been recently in pus. When a major operation is to be made, permanganate of potash and oxalic acid solutions must be employed if pus cases have been handled within two or three days. If not, alcohol and sublimate may be relied upon alone, if the work is not to be of very great length.

(*a*) *Permanganate Solution.*—Into one bowl holding at least half a gallon of boiled water a handful of permanganate of potassium is thrown—as much as will dissolve and leave a little on the bottom.

(*b*) *Oxalic Solution.*—In a similar bowl and a quart or more of water a like amount of oxalic acid is dissolved.

(*c*) *Alcohol.*—A third bowl should contain eight ounces of pure alcohol with four ounces of boiled water added.

(*d*) *Sublimate.*—Enough tablets of bichloride of mercury should be dissolved in two quarts of water to make a solution of the strength 1 to 2000. A porcelain bowl must be used. It should be wide enough to admit the hands with perfect freedom so that the unsterilized edges will not be constantly hit by the hands.

(*e*) *Water.*—Each of the two last mentioned bowls must have been thoroughly scrubbed out and carefully scalded in boiling water (or better, boiled in a large kettle or wash-boiler) and not handled before using. If the brain or peritoneum is to be opened there must be another bowl (similarly cleaned) containing boiled water for rinsing the hands; because bichloride solution must not be permitted to come in contact with either.

In a private house somebody must stand by these solutions (particularly the alcohol) to keep flies from alighting upon and contaminating them—a matter of greatest import. One fly may upset hours of work, and kill a patient if unnoticed.

Substitutes for these Solutions

If the hands have not been in pus lately the permanagnate and oxalic-acid solutions may be omitted. In such case, after the hands have been well scrubbed and the nails attended to, turpentine may be poured upon them and rubbed into the skin and around the nails for at least two minutes; then scrubbing with soap and hot water

proceeded with and the alcohol and sublimate solution employed.

If alcohol cannot be obtained, tincture of camphor (used in so many houses) may be used, though not very good.

Before the hands are sterilized, everything should be placed as desired for operation: The tables for instruments and dressings, the operation-table where the best light is obtainable, the solutions made for hands and patient, the Kelly-pad and slop-jar put in proper position, and cotton, bandages, safety-pins, etc., all arranged where they can be readily reached; for after the hands are properly cleansed nothing not sterile should be touched if avoidable, since contamination of hands means repeated washings and delay.

First and foremost thorough scrubbing is most important. Few doctors realize the importance of perfect hand-cleanness; fewer still take the trouble to do the work as it should be done. Indeed, the chief danger from the work of inexperienced operators is dirty finger-nails.

Scrubbing.—With a stiff brush, good soap (liquid ethereal or potash soap is best, but any soap except "laundry" will do) the hands and fingers must be scrubbed five minutes, by the clock. This seems a long time—the average doctor of both country and city unless requested to wash again and again, will scrub less than two minutes and think he is clean! At the end of five minutes the hands must be dried carefully upon a clean, but not necessarily "sterile" towel. [It is common for doctors outside of hospitals improperly to call any freshly-washed and ironed towel "sterile."] After the hands are dry the finger-nails should be cut *to the quick;* and then the fuzzy, dirty, tender skin (under the nail) just at the point of junction with nail carefully cut away with a sharp blade—this is the neglected, infection-carrying part of the hands, the careless attention to which is yearly causing more deaths than all the armies of the earth!

When the nails have been properly cut and the finger-tips attended to, the soap, brush and hot water are again used. If hot water can be used while running it is best to continue washing under the spigot; if not, fresh hot water must be used in the bowl. Scrubbing must now be continued for not less than five minutes, by the clock again, particular attention being paid to the ends of the fingers, to the spaces at the root of the nails, to the palms of the hands and to the spaces between the fingers. Especial care must be exercised to scrub the right hand as much as the left.

Immersion.—Without drying, the hands are next immersed in the antiseptic solutions to be used.

If the permanganate-oxalic method is to be adopted the hands and arms are washed in the saturated solution of permanganate of potash until they are stained a very deep-brown color; then they are decolorized by washing in strong solution of oxalic acid; next they are immersed in 65 per cent alcohol for not less than two minutes—not mere "washing" but putting fingers and hands in the solution which must cover them, at the last washing the forearms with the alcohol; and finally washing and soaking not less than three minutes in sublimate solution: 1 to 2000.

For every prolonged operation there should be upon a convenient chair or table a large bowl of sterile water in which the hands may be frequently dipped.

If during operation the hands accidentally come in contact with the table, the patient's clothing, the pad, the assistant's face or clothes, they must at once be washed for a moment in the alcohol and then in the sublimate.

If the operator sweats freely he should wash the hands several times in the sublimate solution during a tedious operation, as the sweat brings up microörganisms from the depths of the skin.

The same care should be taken in efforts to sterilize the hands when rubber gloves are to be used as they may be pricked or torn at any moment. It is perhaps best that the operator should work without gloves, but it is desirable that the assistant shall wear them as most operation-infection comes from the fingers.

EXSTROPHY OF THE BLADDER

A paper read before the Oklahoma District Medical Society, describing the operative procedures suggested for this defect and reporting an interesting case

By A. L. BLESH, M. D., Guthrie, Oklahoma

Surgeon to the Guthrie Hospital

TO every conscientious surgeon all patients with congenital defects and malformations have a peculiarly pathetic interest. These unfortunates go through life handicapped by no fault of their own. They constitute abortive efforts on the part of Nature to make a man or a woman. Their intellectual accomplishment and moral refinement may be as great as that of those more fortunate, and the more accomplished and refined they may be the keener do they realize their impediment. There can be no greater satisfaction to reward the efforts of the surgeon in any line of surgical endeavor than to be able, even in a small degree, to relieve these failures and step in and supplement by surgical art, where Nature has failed to do her full duty.

Influence of Congenital Defects Upon the Individual

Exstrophy of the bladder, together with other genital fissures, may be classed in a general way with other deficiencies of tissue, congenital in character, found along the median anterior raphé of the body from the nose to the anus, and which arise primarily from a failure in the infolding of one or all of the three fetal layers, known as the endo-, meso-, and epiblasts. If this occurs in the region of the mouth and nose, we have the various forms of cleft palate and hare-lip. It sometimes occurs throughout the whole extent of this median line, known as the central raphé, and we then have born those monsters in which all the viscera are exposed.

These malformations have an important bearing on the future life of these unfortunates, because with the consciousness that they are not like other people, there comes a peculiar mental depression, which very seriously affects their whole life. Being congenital they should, if amenable to surgery, be operated upon at the earliest possible time, so as to in a measure remove or prevent the development of the mental sequelæ mentioned above, and also for the reason that the tissues of the child yield themselves more readily to plastic intervention.

Exstrophy of the bladder may vary in degree from a slight fistulous tract, due to the persistence of the urachus, to a complete absence of the anterior bladder-wall, that state in which the ureters empty themselves through a granulating, inflamed surface, which represents the mucosa of the posterior bladder wall. These extensive malformations are quite usually associated with a deficiency in the bony structures of the pubic region, and also with epispadias.

With these more extensive malformations there is always absence of anything resembling sphincter-structure, so that any operation looking toward a relief of this condition can offer no hope of a controlled bladder. But this does not mean that much cannot be done for their relief.

Objects of Operative Interference

In a general way all operations for this condition may be divided into, first those looking toward a reconstruction of the bladder itself, using such of the bladder-structure as is available and supplementing the deficiency with the adjacent skin-structure, or with some portion of intestine looped up and short-circuited for the occasion; second, the entire removal of

the deformed bladder and transplantation of the ureters into the urethral gutter, or the skin, or colon.

The first class deals with all gradations from the simple fistulous tract to those in which almost the entire anterior bladder-wall is absent and the urethra may appear as a mere gutter or dimple.

In speaking of this class of operations, however, it is well to bear in mind that while we are able in a degree to reconstruct an amplified portion of the tractus urinalis, we are not able to give it the characteristic functions of a bladder, viz., ability to retain a varying quantity of urine, and expell it at the volition of its owner. In other words we cannot create a sphincter vesicæ, which is alwavs absent in the severer grades of the malformation.

The Wood's operation typifies this class of plastic work, and consists in utilizing an inverted skin-flap from the adjacent abdominal-wall, and then facing this with still another flap slid over it. There are two objections to this type of operation, the first of which has been mentioned above, and consists in the fact that the amplified portion, which we have succeeded in making, is not a bladder at all in that it fails altogether in performing the function of one, not being endowed with the function of retention. The second objection is that there is always a growth of fine hair from the epidermal surface, which invites the deposit of urinary salts and thus proves to be a source of great pain and annoyance to the patient. The epidermis of the skin proves to be but a poor substitute for the pavement epithelium of the bladder, and never does develop into anything resembling this structure.

Using a Loop of Intestine for the Bladder

That class of operations, which endeavors to make use of a loop of intestine to reconstruct, the bladder is open to the same objections urged against the skin-flap method. While it is quite true that the mucous membrane of the bowel is histologically more closely related to that of the bladder than is the epidermis of the skin, yet after we have taken the most infinite pains to make a new bladder we find that we have not succeeded in making one at all, and the patient has not been relieved from the necessity of wearing an artifical substitute, so that in this day the profession is gradually coming to look upon the second class of operations, as typified in the Maydyl procedure, as the operation of choice.

Perhaps the discovery and utilization of the colon or rectum as a receptacle for the urine by means of the transplantation of the ureters therein should be credited to Simon, who first attempted it in 1805. But his attempts, and those of others following him, were associated with such a horrible mortality that it was practically abandoned until a later period.

Mortality of the Maydyl Operation

This frightful mortality arose from two sources, first, sepsis, and second, an ascending nephritis. With the advent of a better understanding of the laws governing the causes of sepsis, the former cause of the mortality was practically eliminated, but the latter cause seemed an inherent defect in the method itself, and so seemed insurmountable, until Maydyl demonstrated that by transplanting the ulcers together with the portion of the bladder-wall to which they are normally attached, this difficulty was obviated. Maydyl himself explained this apparent immunity against an ascending infection by attributing a sphincter-function to the ureteral orifices, thus preventing or at least militating against the entrance of infection into the ureters from the bowel, which had been the great danger hitherto and which had deterred surgeons from availing themselves of this very obvious and accessible route.

The real explanation very probably lies in the fact, that in the transplantation of a portion of the bladder-wall with the ureters the orifices of the latter escape traumatism, and thus are able to bring in action all their inherent germ-resisting powers, traumatism itself very much favoring germ-invasion, and thus affording the

starting point for the ascending infection, which so invariably followed the early operations of this class. Another reason lies in that in the separate dissection of the ureters it is very probable that their accompanying nutrient vessels were disturbed.

In the old Maydyl operation the transplantation of the portion of the bladder-wall containing the ureters into the colon was an intraperitoneal procedure, while some of the later operations, more particularly that of Peters of Toronto, who has done perhaps some of the best work along this line, makes the transplantation individual and into the rectum instead of the colon, and thus converts the operation into an extra- instead of an intraperitoneal one. In doing this he preserves that portion of the bladder-wall immediately surrounding each ureter, and transplants it with the ureter into the sigmoid flexure. This is accomplished by grasping the ureter by means of a forcep inserted in the rectum, and through a small incision in the wall of the gut and drawing the ureter with its attached bladder-wall well through and into the lumen of the gut. The peritoneal covering of the bowel may be made to fit the ureter closely by infolding it over the ureter for an inch or more with Lembert sutures. Thus each movement of the bowels really tends to produce a sort of milking action upon the imbedded ureter, and has a tendency to close it against the forcing in of infective material.

Rectum Can Receive and Contain Urine

It is well demonstrated that the rectum is capable of receiving and retaining the urine thus discharged into it for from two to four hours, and voluntarily discharging the same at the will of the patient. This is done in the squatting posture. In the original Peters's operation the wound in the abdominal-wall was left to close by granulation, and it would seem that in many of these cases, at least, owing to the deficiency in both bony and soft structures, this would be a necessity. While it might be possible to successfully close this hiatus in the child, whose tissues yield themselves readily to plastic work, it is an impossibility in the case of an adult such as I am about to report in this paper.

Some efforts have been made along the line of completing the bony circle in front by first freeing the sacroiliac synchondrosis and drawing forward and wiring the extremities of the bones in front, and second, loosening the recti muscles with their periosteal attachments, sliding them over and suturing in the median line in front. These efforts toward reconstructing the anterior abdominal wall have met with a fair degree of success, and the time is probably close at hand when efforts along this line will be rewarded with the same degree of success as attends the modern operation for restoration of the palate.

The Report of a Case.

X, referred to me by a physician in a neighboring town for operation. The patient entered the hospital dressed in woman's clothing and had always gone so apparelled, believing himself to be a woman. Age 35. Upon examination the following conditions were found to be present:

Immediately above the pubic region a red, inflamed and bleeding mass presented itself through which the urine trickled. This mass had been assumed to be the uterus by the patient and several physicians who had seen him, and that the discharge of blood, which occurred at irregular intervals was supposed to be menstruation. There was a hiatus between the deficient ends of the pubic bones, of at least two inches, which was covered over with skin to which was attached a rudimentary penis. There were two fairly well-developed testes suspended in a very short scrotum with a fairly well-marked fissure or depression between them. On the left side there was a hernia continuous with the tunica vaginalis —a congenital hernia. The hairline was not sharply defined as in the female sex. The voice was that of a man, and there was no mammary development. There was no growth of hair upon the face. The figure was masculine, so likewise the pelvic

formation. The hemorrhages referred to above were sometimes so copious as to exsanguinate the patient.

A Mistake Concerning the Sex

How the attending physicians who had seen the patient at different times were misled into pronouncing the patient a woman, is beyond my comprehension, unless their examinations were very superficial. The one referring the case to me had made no examination at all. However, I may add that I did not succeed in convincing the patient that he belonged to the male sex and he left the hospital still garbed as a woman. I suppose that the feminine habit had become a part of his nature through 35 years of thinking himself a woman. This all the more probable since we have seen the remarkable demonstrations, which Mrs. Eddy has vouchsafed us, in the trick of thinking ourselves to be anything we want to be.

We intended doing a modification of the Maydl operation but as the dissection proceeded it became more and more evident that malignant degeneration had occurred in this much irritated mass, so that a transplantation into either colon or rectum was out of the question, for the fear of transplanting cancerous cells, and also for the reason that a union of tissue thus effected would be very unlikely. The right ureter was found to be completely occluded, and was but a fibrous cord. The entire bladder-mass was now removed, the left ureter cut well back and brought out and attached to the skin margin. The peritoneum over the posterior bladder-wall was dissected carefully away to be utilized later, as a flap to be sutured to the parietal peritoneum, so as to entirely close the abdominal cavity, and the large overlying surface left to close by granulation.

The Operation a Success

Patient was discharged from the hospital in three weeks with granulation well under way and the wound cicatrizing nicely. This improvement has continued to the present time, and the patient is very much more comfortable since this large tender bleeding mass has been removed. The chances of recovery in this case depend altogether upon whether or not there is a recurrence.

DYSTOCIA FROM SHORT CORD

This article, which was written in 1882, was sent us by the author's son, Dr. Samuel Dodds of Cairo. It contains a "business" lesson, as well as an obstetrical one

By the late FORD S. DODDS, M.D.

Practician in Southern Illinois for nearly forty-five years; Surgeon 60th Illinois Volunteer Infantry; U. S. Pension Examiner, etc.

THIS case occurred over twenty-two years ago (about 1860). It gave me so much annoyance at the time, that all the circumstances are fresh in my mind.

A midwife had been in attendance some twelve hours. I found the patient well developed, os dilated, vertex presenting, pains strong. I could see no reason why the child should not be born soon. I waited patiently for four or five hours, when, no progress being made, I rode three miles to my office for forceps.

When I returned there was no change. Every time traction was made she complained of severe pain at the fundus of the womb as though something were tearing loose, as she expressed it. I then began to expect that I had a short cord to deal with, and that delivery could not take place without applying traction with sufficient force to sever the cord from the placenta.

As the forceps gave her no inconvenience it was left in position about an hour. Finally the head was brought down against the perineum, then the forceps removed. The child remained in this position for some time, suspended by the cord. All became impatient at the delay and I sent a messenger for the "Old Doctor." Before his arrival, however, the head passed through the vulva, when I found two coils of the cord drawn tightly around the child's neck; so tightly that I could not pass my finger between the cord and the neck.

It was impossible to liberate it in the usual way. I allowed her to have a few pains in this condition, when I found it necessary to sever the cord. The next pain expelled both child and placenta, and with as much force as though shot from a catapult. There was no circulation in the cord. The child had evidently been dead a long time; past all possibility of resuscitation.

I infer that the traction made by the forceps and the hard pain freed the placenta from the uterus before the head could pass through the vulva, and that the placenta resting upon the back of the child's neck delayed the delivery of the shoulders until the cord was cut. It was not an extremely short cord, but was made so by the two coils around the child's neck.

Soon after delivery the "Old Doctor" came and informed us that in all his experience he never met with a case where he could not slip the cord over the shoulder. I picked up the remnants, adjusted the cut ends of the cord, coiled it tightly twice around the child's neck and found that the placenta reached just to the top of the shoulder. I tried to explain the impossibility of disengaging the cord over the head or shoulder, but he remained quite unconvinced.

In a reasonable time I presented my bill to the husband and father. His answer was: "That's bad coffee. Dr. C. told me that if he had been called in time he would have saved my child and saved my wife all of that suffering." My reply was. "I will give you three days to pay me $20. If you don't, I'll get a judgment against you for double the amount." I got the $20 the next day. I have been sorry ever since that I did not make it fifty.

I presume he thinks to this day that I made some terrible blunder, as he has never employed me since.

A CASE OF PUERPERAL INFECTION

A rare case of this form of infection, in which psoas abscess was closely simulated

By WILLIAM AYERS, M. D., Brierly Hall, Staffordshire, England

ON April 25th, 1903, I attended a patient in her fifteenth confinement. I had attended her in three previous confinements. The labor was most uneventful. I arrived just in time to be present at the birth of the child. On the fifth day of the puerperium the patient had a rigor. The temperature was 99° F and the pulse rate was 100 per minute. I douched out the uterus and put the patient on a quinine mixture. I examined the uterus and adnexa most carefully but could find no reason for this rigor and as the temperature remained normal thought I was free from all trace of puerperal infection.

On the twelfth day of the puerperium the patient began to complain of pain in her left leg which gradually got worse and the leg began to contract until the knee was at right angles to the body. The pain was relieved by suppositories of morphine. On the fifteenth day of puerperium a small, hard lump the size of a Tanger-

ine orange began to appear to the left and below the umbilicus. This lump was very hard and immovable and was thought to be an inflammatory swelling in connection with the broad ligament pressing on the lumbo-sacral plexus; it grew very slowly. The temperature never went beyond 99° F and that only once or twice, the pulse-rate never went beyond 100 per minute.

On May 18 I had for private reasons to leave my practice and gave instructions that a colleague should see the patient in my absence if the pain became unbearable. My colleague came to the conclusion that the lump was of a cancerous nature owing to its hardness and immovability and also absence of any very definite temperature or disturbance of pulse-rate. It was decided, that as there was some doubt as to the exact nature of this lump, to give the patient the benefit of an operation.

After consultation, Dr. Edge, Chief Surgeon of the Wolverhampton Hospital for Women and also the Birmingham Hospital for Women, kindly undertook the operation which was performed at the Nursing Institution, Wolverhampton, on June 9.

After the preliminary laparotomy a hard lump was discovered behind the sigmoid flexure which was fixed, but not involved anteriorly or laterally. As owing to its position removal of the mass, if malignant, was impossible and incision into it pregnant with danger should pus have been struck, as it would have had to drain through the peritoneal cavity, it was decided to await events and the abdominal wound was accordingly stitched up again. The uterus and adnexa were found to be in a perfectly healthy and normal condition.

The patient stood the operation well and made a good recovery. The temperature several times reached 101°F. and the pulse-rate varied from 90 to 110. The patient seemed to be in rather a typhoid condition but at the end of three weeks improved and went home. There was no doubt as to sepsis of some kind but it was held to be due to mischief in the sigmoid or infection of the mass from the intestinal canal but the mass was so hard and firm that the possibility of sarcoma was not excluded and the question was raised as to whether an artificial anus might not be required later on. Ten days after her return home the lump suddenly disappeared from above the brim of the true pelvis and presented itself in Scarpa's triangle where it was seen to be inflammatory and accordingly opened. The patient was up and about again in the course of another two months.

The lymphatic glands involved were the left common iliac and lower lumbar glands, and it is possible that the lesion in these cases is an injury to the rectal tissues during labor.

Dr. Watkins of the Northwestern University, Chicago, reports a somewhat similar case in the July number of the JOURNAL, page 900, but there are so many points of difference between the two cases that perhaps a report of my case may be of interest to the profession.

::: SURGICAL THERAPEUTICS :::

SHOCK WITH ABDOMINAL PAIN

Very often in abdominal disease and acute trauma the patient's mind becomes dulled: apathy—and later unconsciousness—appears; urine excretion is diminished or absent, the pulse and respiration become imperceptible, temperature subnormal, pupils dilated, slowly responsive or fixed, and death occurs speedily, in the severe types of disease or injury. Vomiting is frequently prominent, but comes from acute sepsis, not peritonitis. A death of this kind very soon after an injury or rupture of an abscess may usually be said to be due to shock; but if death be delayed more than a few hours it is from acute sepsis. "Deferred" or "delayed"

shock is sepsis, pure and simple. But there is a true shock associated with acute pain: Severe traumatism (especially if productive of sudden, complete rupture of liver or spleen or perforation of bowel, uterus or bladder); violent hemorrhage; acute pancreatitis; sudden complete blocking of the ureter, the biliary passages, or even the pancreatic duct; mesenteric embolism; sudden strangulation of the gut or even omentum by constriction of a hernia or twist; torsion of the pedicle of an ovarian or uterine tumor—all these are always more intensely shocking than the same lesions when slowly produced, and are always accompanied by much suffering. From this kind of shock the temperature slowly rises, often going to 100; but the chief guide is the pulse. A progressive, even slight, hurrying and weakening of the pulse, with or without persistent lowering of body temperature, is indicative either of persistence of the exciting cause, the superaddition of more or less sepsis or of gangrene; and, especially if accompanied by cessation of pain, may be regarded as a pretty constant indication for immediate operation.

STITCH ABSCESSES FROM BACILLI COLI COMMUNIS

During an operation for gallstones, cholecystitis, appendicitis, infected ovarian tumors or other condition in which the bacillus coli communis is the pathogenic microorganism at fault, a trifle of the pus or infected serum or mucus may come in contact with the raw surface of the wound in the abdominal parietes. If the cut be sewed without drainage there may be no rise in temperature, and the operator flatters himself that he has no wound-infection. Yet on opening the dressings on the tenth or eleventh day he finds every stitch-hole oozing pus and on separating the margins of the incision at one or two places several drams of pus may be squeezed out. If this be a pure colon-bacillus infection, in addition to the peculiar absence of fever the wound will be found free from the redness and excessive tenderness characteristic of staphylococcus infection. If the pus be pressed out carefully the wound will quickly heal; but if by carelessness in handling a staphylococcus infection is engrafted a long and tedious suppuration may follow, with fever and pain.

FACIAL ERYSIPELAS

Early in an attack of erysipelas of the face it is a good plan to cover the affected area with equal parts of ichthyol and extract of belladonna, a piece of rubber-tissue or oiled-silk being placed over it to keep out the air. A half centigram (gr. 1-12) of pilocarpine may be given hypodermically and repeated by mouth every two hours until profuse perspiration is induced; then one every four to six hours to keep the skin constantly moist. The bowels must be kept active, preferably by saline laxatives. It the temperature runs high a few doses of acetanilid (half gram, repeated in two hours—twice in twenty-four hours) may be given early in the trouble, but must be watched carefully later. Stimulants and food are indicated always. Sulphate of strychnine (one-fourth milligram—1-20 grain) may be given every six hours when patient is weak.

AFTER CHOLECYSTOSTOMY

After the gallbladder has been opened and drainage established the external layers of gauze and cotton must be changed as often as they become soaked with bile, blood or mucus: about every four to six hours the first day and twice daily thereafter; but the layers of gauze next the wound should not be disturbed until the third or fourth day when the drainage may be withdrawn. Next day the gallbladder may he washed out with peroxide of hydrogen, but no water; a small strand or wick of gauze may be inserted into the opening, but care must be taken that it does not slip into the gallbladder; in one of my cases a long piece of iodoform gauze

was carried in the gallbladder more than two years (with no discomfort save the annoyance of a fistula which would discharge a little bile and mucus every few weeks). After gallstone disease the gallbladder should be drained three weeks, great care being exercised not to infect with staphylococcus or streptococcus, i. e., plenty of bichloride gauze (1 to 2000) must be used at each dressing, and hands and syringe must be sterile; it is best to use rubber gloves in changing the dressings, as they may be rendered sterile very easily. Internally calomel should be given as early as the third day, and thereafter the bowels kept loose by podophyllin, or salines.

VOMITING AFTER ANESTHESIA

Vomiting after anesthesia will cease spontaneously in a few hours (twenty-four at the farthest) unless acute sepsis is coming on, provided all water or other fluid is scrupulously avoided. Above all things ice in the mouth should not be permitted—it tends to prolong nausea indefinitely; but the tongue and lips may be moistened every few minutes with a cloth wrung from ice-water. For wealthy patients a little iced champagne may be ordered after eight hours—a half teaspoonful every half-hour until the end of the first twenty-four hours when, if vomiting has ceased, water may be given cautiously; if it is thrown up another twelve hours of abstinence must be enforced. For patients who can not afford champagne one drop of phenol in a teaspoonful of peppermint water may be ordered every hour if the patient and friends demand something in the way of medication. But the best remedy is perfect quietude and withholding of fluids.

CHRONIC CYSTITIS

A very distressing sequel to any operation in which the bladder has to be catheterized repeatedly is a chronic cystitis. The irritation may persist for months in spite of the most energetic treatment. Probably the most satisfactory remedy is lithia; it may be given as an effervescent tablet in a glassful of water three times a day for long periods, or the benzoate of lithium may be used in doses of one or two decigrams (one grain to three grains) every four hours during the day until the stomach rebels. If there is much annoyance from having to urinate at night two grams of bromide of potassium with a teaspoonful of tincture of hyoscyamus may be ordered at bedtime. To some patients arbutin (from uva ursi) in doses of one centigram (gr. 1-6) four to six times a day brings relief. Others are benefited by half-gram doses of salicylate of phenol four times a day. Extreme cases demand irrigation of the bladder with a saturated solution of boric acid three times a week; after a few washings it is well to inject a dram of fluid extract of hydrastis in two ounces of water, at the end of an irrigation leaving it in the bladder. As a rule, however, the less local treatment the better in the end. Patience and two quarts of water drunk daily will do much toward cure.

AMMONIA FOR BEE-STINGS

For the poisoning from bee-stings, bites of insects, etc., aqua ammonia may be employed, applying it on a little absorbent cotton over the congested area. It may be renewed in a few moments when evaporation of the first application has occurred.

REDUCTION OF HERNIA

When the contents of a hernial sac, previously reducible, cannot be returned to the abdomen the patient should be given 1-4 grain of morphine and 1-100 of hydrobromide of hyoscine hypodermically. In half an hour a good dose of strychnine should be injected if the pulse is weak. Then with the patient upon his back, a pillow under the hips and knees drawn up (and supported by some one) to relax all muscles a few drops of chloroform may be given by inhalation; relaxation will be complete in a few minutes and the hernia may spon-

taneously disappear. If not, gentle taxis may be instituted; but no force must be used and efforts at reduction should not be continued more than fifteen minutes. If the trouble cannot be relieved in that time operation is needed; and soon.

PHENOL SALICYLATE IN CYSTITIS

One of the most valuable of all drugs used for cystitis is salicylate of phenol. This consists of about 65 per cent salicylic acid and 35 per cent phenol; is decomposed slowly in the intestine by the pancreatic fluid into its original constituents; and is eliminated through the urine as urate of salicyl, though if given in large quantities some seems to pass into the bladder unchanged. In five-grain doses every three hours it effectually prevents decomposition of urine in the bladder and keeps it from becoming alkaline. It cannot be continued very long on account of producing phenoluria. Whenever the urine becomes smoky boric acid should be substituted for a few days.

ABSORPTION OF IODOFORM

Many surgeons use iodoform as a powder for its drying and antiseptic properties, as well as for injection of tuberculous cavities (joints, etc.). Some patients, notably those of pink skin and red hair, are easily poisoned, both locally and systematically. The local manifestation is a deep erythema, and sometimes the formation of vesicles. The symptoms of absorption are: (1) thick coat upon the tongue with metallic taste; (2) slight nausea with loss of appetite and, later, in extreme cases, vomiting and diarrhea; (3) increase of pulse to 120 or 140 per minute, with irregularity and palpitation in severe poisoning; (4) delirium with hallucinations or melancholia. As these symptoms are much like those of staphylococcus infection great uneasiness may be felt upon their appearance, but discontinuance of the iodoform application or withdrawal of the iodoform-gauze pack from the vagina (after vaginal hysterectomy), from the abdomen (after appendectomy or pelvic operations) or other wound will generally be followed by prompt disappearance of the symptoms; but rarely they persist for days or weeks and fatal results have been reported. Gram doses of bicarbonate of sodium are recommended as an antidote.

STRYCHNINE FOR RESPIRATORY FAILURE

During or at the termination of operations of great magnitude entirely too much strychnine is being given everywhere; it is not at all uncommon to see a half centigram (1-15 grain) injected at one time—for "heart-failure." Strychnine should not be given with the object of correcting heart-failure; it is a stimulant to the respiratory center and should be given when the breathing is shallow and too slow. It is therefore especially indicated in anesthesia from the hyoscine-morphine-cactin tablet when the number of respirations fall below six per minute. It should not, however, be given until the end of operative work, whenever possible, as it is apt to cause the patient to become nervous and somewhat excited.

FAREWELL, "CARBOLIC ACID"

Carbolic acid has been relegated to the limbo of the "has beens." This does not mean that such an important agent will be discarded by doctors, but—the United States Pharmacopeia now calls it simply "Phenol." This is a much better name and will be used hereafter in these pages. All progressive physicians will do well to adopt the new name. The 95 per cent solution is known as "phenol liquefactum." Salol is no longer "salol" but phenylis salicylas—salicylate of phenol.

POST-OPERATIVE PARALYSIS

Following an operation of more than an hour's duration there may be temporary paralysis of one arm. Some authors have attributed this to the deleterious effect of

chloroform; but it occurs after ether narcosis and also as a post-operative accident in anesthesia produced by the hyoscine-morphine-cactin combination. It is due entirely to the position of the arm; by reason of the entire weight of the arm (and occasionally a considerable part of the thorax) being thrown across the sharp edge of the operation-table, pressure-paralysis is induced—just as one's foot "goes to sleep" when the thigh hangs over the rail of a chair. It lasts from a few hours to as much as two or three weeks. If the patient becomes anxious about it massage may be ordered, or the faradic current may be applied (not because it possesses any value but that the patient may *feel* that something is being done). In persistent cases the galvanic current may be used with intramuscular injections of one-thirtieth grain of sulphate of strychnine once daily.

REMOVAL OF GASTRIC ULCER

It is far better, when possible, to merely remove the ulcers (even though there be three or four) near the pylorus than to make a gastrojejunostomy. If they can be excised without danger of causing cicatricial stricture of the pylorus the advantages of simple excision are that the site of the disease (and the source of hemorrhage) is removed, the normal relation of viscera is not disturbed, convalescence is speedier and the ultimate results are better. Of course if there be great dilation of the stomach it will be better to make a gastroenterostomy at the most dependent position of the stomach, but on account of the danger of formation of "vicious circle" it should be avoided whenever possible. Ulcers of the duodenum should be treated in the same way.

BLACK VOMIT AFTER OPERATIONS

The appearance of black vomit after an operation is serious, but particularly is it so in abdominal surgery. A little bile may be thrown up during the vomiting which follows prolonged anesthesia. This should not cause anxiety; but when the ejecta becomes darker and the vomiting "soft and easy" without much straining it means oncoming acute sepsis and usually death unless prompt and effective treatment is instituted. Three things are necessary: (1) The use of an ox-gall and turpentine enema (ox-gall one dram, turpentine two drams, soap-suds one pint) thrown high in the sigmoid; (2) the internal administration of half centigram (gr. 1-12) of calomel every hour—it has a quieting effect on the stomach; and (3) the hypodermic injection of one milligram (gr. 1-67) of salicylate of eserine every hour, four doses. If the bowels do not move freely inside of eight hours the calomel must be stopped and a milligram of elaterin given by mouth every hour. Washing out of the stomach with warm water twice a day does much to help arrest the emesis.

CHLORO-PHENOL FOR PAIN

When chloral hydrate and phenol in equal parts are rubbed together there is formed a syrupy liquid which is strongly antiseptic and anodyne when used locally. For the pain of inflammatory troubles it may be gently rubbed in or applied on flannel. It is especially effective in the control of certain neuralgic pains, notably pleurodynia.

STRYCHNINE IN STRANGULATED HERNIA

Often the nervous depression in strangulated hernia is alarmingly apparent when the surgeon reaches the patient's bedside; indeed it is so great that strong men die from the shock of what under other conditions would be a trivial operation. When this condition is present, the first thing to be done after ascertaining the nature of the trouble is to inject four milligrams (about 1-15 grain) of sulphate of strychnine. In a few minutes a dose of the hyoscine-morphine-cactin anesthetic may be

injected, and by the time everything is ready for operation (which may often be done under cocaine) the general condition of the patient will be much improved.

TUBERCULOUS LYMPHADENITIS

In the management of tuberculous adenitis the internal treatment and the local are rather more important than the operative. Yet no one should persist in internal medication and local applications until burrowing abscesses have formed or the glandular substance has broken down and is about to discharge through the skin; for such treatment would lead to disaster,—the formation of indolent, discharging sinuses, with danger of systemic trouble from mixed infection—for as soon as the "cold abscesses" open there is engrafted on the tuberculous soil the staphylococcus, even if not the streptococcus. Hence it is very easy to wait too long, especially as the patient makes but little, if any, complaint. But so long as the tuberculous focus seems limited within the capsule (evidence: non-adherence to surrounding tissues) it is safe to abstain from surgical interference—often for weeks and sometimes permanently. Non-operative treatment consists of (a) general measures: increase of food, maximum of outdoor life in the sunshine, encouragement of proper elimination by kidneys and bowels (excess of water and saline laxatives but no physic); (b) the administration of drugs calculated to strengthen: notably iron, arsenic and strychnine, creosote, with small quantities of alcohol just before each meal (sweet wines or whisky with glycerine or syrup just before eating causes a patient to take more food than he does without the alcoholic agent); and (c) local use of either tincture of iodine painted on the affected gland—its absorption aided perhaps by the negative pole of a galvanic battery (50 to 75 milliamperes)—or an ointment of ichthyol in lanolin. Massage, aside from the gentle rubbing in of ointment, must never be permitted; rupture of the capsule of a non-inflamed tuberculous gland is likely to have early phthisis as a result. As soon as the gland softens, or becomes adherent, it should be excised.

GYNECOLOGICAL THERAPEUTICS

NITRITE OF AMYL AT THE MENOPAUSE

At the menopause there is a group of symptoms very annoying to the woman affected, and very aggravating to the doctor who does not know what to prescribe. The patient seeks relief for flushing of the face; a sensation of intense heat about the face and neck; palpitation of the heart; spells of weakness or prostration so great that she is compelled to frequently sit or even lie down; the flushings, etc., followed by free perspiration. With these there is more or less pronounced anemia, mental depression (sometimes almost amounting to melancholia) and broken slumber. For the general "run-down" condition tincture of the chloride of iron and a generous diet should be ordered. For relief of the immediate distress amyl nitrite may be depended on in most cases; it relaxes the whole arterial system, greatly reducing arterial pressure. One-half to three minims may be taken either by inhalation (by breaking glass beads containing the drug) or by the stomach (dissolved in alcohol—five drops to the dram), the solution being dropped on sugar. In some cases no more than a tenth of a drop causes bad feeling; in such the drug must be discontinued.

GENITAL CONDYLOMATA

Condylomata of the genitalia are most easily removed by use of the Paquelin cautery. But sometimes patients object to anything which can be regarded as an

operation even though done under local anesthesia. In such a case the growths may be touched with pure acetic acid, without great pain; and the patient directed to keep the affected parts constantly moist with a solution of one dram of the acid to a pint of water.

Acetic acid, pure..... 4.00
Water 500.00

Under this treatment the warty growths will speedily and painlessly disappear.

IRON IN CHLOROSIS

For that particular form of anemia known as chlorosis iron and arsenic are each indicated—but in far smaller doses than usually advised. The good to be derived from iron is from the amount absorbed, not from the quantity which can be taken into the stomach. A most useful formula for such patients is:

Iron arsenate ...0.001 (gr. 1-67)
Quassin .....0.002 (gr. 1-33)
Quinine hydroferrocyanide..... 0.01 (gr. 1-7)

This combination is obtainable in the form of granules of which two may be given one hour after each meal for acute cases; later one will be all that will be required. If a little port wine be ordered before each meal, and tea and coffee prohibited, marked improvement may be expected in a short time.

CIMICIFUGA IN TREATMENT OF ABORTION

Arrest of a threatened abortion is sometimes very difficult. If the os is dilated and blood is escaping from it there is usually no hope of stopping the miscarriage, but so long as no blood has passed the attempt should be made. In addition to the usual quietude, morphine, etc., always tried at the time of appearance of the more serious symptoms, other things must be done after the immediate danger is over; for as soon as the woman gets up there may be a return of the threatening symptoms. Here cimicifuga is always to be tried—from 10 to 20 drops of the fluid extract three times a day. The rectum must be kept empty by warm enemata twice a day and all violent muscular exertions forbidden. After a week or more the cimcifuga may be discontinued and viburnum substituted. The fluid extract of viburnum prunifolium in doses of 1 dram three times a day has long enjoyed the reputation of being the best uterine sedative and prophylactic against abortion. It possesses this advantage: It may be continued for weeks without danger to either mother or fetus. It may also be exhibited, if preferred, in a tablet containing one centigram (1-6 grain), the dosage of which is one to six.

OVARIAN NEURALGIA

Under the term "ovaritis" many authors describe symptoms which are of pure nervous origin—ovaritis is very rare save as a complication of gonorrheal salpingitis. For the pain described by the patient as ovarian, hyoscine hydrobromide may be given hypodermically; but morphine should be avoided unless the pain is excruciating. A very minute dose of apomorphine is excellent for hysterical patients. Cleaning out the colon is imperative—much of the pain is in the left ovarian region, simply an overloaded sigmoid and rectum; saline laxative being especially beneficial. To prevent recurrence, tablets of phytolaccin and of strychnine should be given three times daily, three centigrams (half a grain) of the former and two milligrams (one-thirtieth grain) of the latter at each meal; with laxative pill at bedtime; and out-door life if possible.

HYSTERICAL AMENORRHEA

Nervous women, and particularly anemic, hysterical ones, are prone to complain of suppression of the menses—an interval of several months between the flows being not at all uncommon; yet local examination shows nothing abnormal. For these patients aloes is a most potent remedy. But it must be given judiciously, at the proper time. No mat-

ter how many weeks have passed without any show of blood the woman can tell by her feelings the proper time for her menstruation; the pains in the back, aching in thighs and hypogastric region, ovarian colic, headache and flushing, with general indisposition, all appear at the regular period. It is only at or just before the onset of these symptoms that direct emmenagogues should be given. In the interval the valerianates of quinine, iron and zinc may be given thrice daily, eight centigrams (one grain) of each; with five drops of tincture of nux vomica in half a glassful of water before each meal—this being better than strychnine in these cases because the bitterness makes the patient eat better. Forced feeding, outdoor exercise and the taking of at least two quarts of fluids daily may bring on the flow unaided. If not, when the menstrual pains begin (or three days before if the time is known), a pill containing one centigram (1-6 grain) of aloin should be ordered before each meal and at bedtime, the other medication being temporarily discontinued. With the aloin may be given permanganate of potash and gossypium in proper doses. Hot foot-baths at bedtime are advisable.

TO BE SEEN THROUGH SPECULUM

"Isn't it nice," exclaimed the dear old lady who gets things a little mixed, "that you can have some one look up your gynecological tree for you and tell you what you come from?"

CANNABIN FOR DYSMENORRHEA

To control the pain of an acute attack of dysmenorrhea morphine should not be given save under the most urgent conditions. It is better to give two or three centigrams (gr. 1-3 to 1-2) of cannabin every two or three hours, either alone or with half a milligram (gr. 1-134) of gelseminine. Two doses of acetanilid (half gram: 8 grains) are permissible, an hour apart. If an opiate must be given phosphate of codeine in dose of one decigram (1 1-2 grains) by mouth or hypodermically is to be preferred to any other preparation of opium.

AN ENEMA FOR VOMITING OF PREGNANCY

In persistent vomiting of pregnancy two grams (30 grains) of bromide of potash, one of chloral (15 grains) and two of deodorized tincture of opium (i. e. 30 drops) may be dissolved in four ounces of starch-water and thrown into the rectum night and morning, after the bowels have been moved by physic or enema. Many times two or three days' treatment will suffice to entirely check the emesis.

CIMICIFUGA FOR SUPPRESSION OF MENSES

A favorite remedy with many doctors is cimicifuga for those cases of suppression of the menses due to cold, those dependent upon a sudden shock or fright and those arising from grief or other mental emotions. Such suppression is attended with dull headache, severe backache, soreness in the muscles, pain in the limbs and "bearing down" sensations in the pelvis. A few doses of the fluid extract of cimicifuga (one dram every four hours) will bring on the flow quickly if accompanied by hot foot-bath and warm douche continued for half an hour.

TO CHECK THE FLOW OF MILK

When the mother is not to raise her child upon the breast control of the flow of milk becomes a serious problem sometimes. If the breasts be bound tightly by a bandage extending from three or four inches below the mammæ to the clavicle and the pressure be continued firmly and evenly for several days the flow will be prevented in some and greatly diminished in others. If milk forms abundantly some of it must be drawn off with a breast-pump. Equal parts of tincture of belladonna and tincture of camphor should be rubbed into the skin over each breast twice

daily (at the time when the milk is taken) and the pressure resumed. If this be done before the breasts become "caked" they soon are found to be soft, painless and free from secretion. But often an acute inflammation (mastitis) arises; the breasts are found hard and knotty, the skin red, shiny and terribly tender, the patient has much pain and a temperature of 99 1-2° or 100° F. In such cases equal parts of unguentum belladonnæ and of lanolin may be mixed together and rubbed over the areola and skin; with a kaolin-glycerin poultice over all. Abscess may very often be thus prevented.

HYOSCINE AND MORPHINE IN PUERPERAL ECLAMPSIA

The combination of 1-100 grain of hydrobromide of hyoscine with one-quarter grain of morphine hydrobromide so modifies the effect of morphine as to render it a safe remedy for hypodermic use in puerperal eclampsia. With it should be given, by mouth, 15 minims of fluid extract of veratrum or a corresponding amount of veratrine. In one hour and a half if the convulsions continue the dose should be repeated; and a third dose may be given in another hour and a half, though with less veratrum. Under its influence the convulsions are not only controlled but the necessary steps may be taken for hurried emptying of the uterus. A few drops of chloroform now and then may be needed at first, to control the spasms, but after the full effect has been manifested no more will be required.

HYSTERIA OF MENOPAUSE

About the time of the climacteric some women are troubled by certain nervous symptoms which have been named "hysteria of mid-life" by several writers. These patients suffer from a distressing fulness in the head with alarming fluttering of the heart, "sinking spells" on severe exertion, "hot and cold flashes," and a peculiar headache limited to a small part on top of the head. Most of these patients will be found on blood-examination to have deficiency of hemoglobin; to these, large doses of tincture of the chloride of iron should be given, 10 drops an hour after each meal, with a laxative at bedtime. It must be remembered, however, that some persons can not take iron even in the most infinitesimal dosage, a glass of the mildest ferruginous spring water giving them a sensation of fulness and pain in the head and interfering seriously with digestion. When such are met, codeine, bromides, belladonna, etc., may be tried instead, with forced feeding and outdoor life.

CHRONIC ABORTION

To avert probable abortion in a woman who habitually loses her fetus about a certain period of gestation, chloride of gold should be taken from the very time of conception. In many instances tertiary syphilis will be found as the cause—mercury and iodides then being indicated.

VULVAR CONDYLOMATA

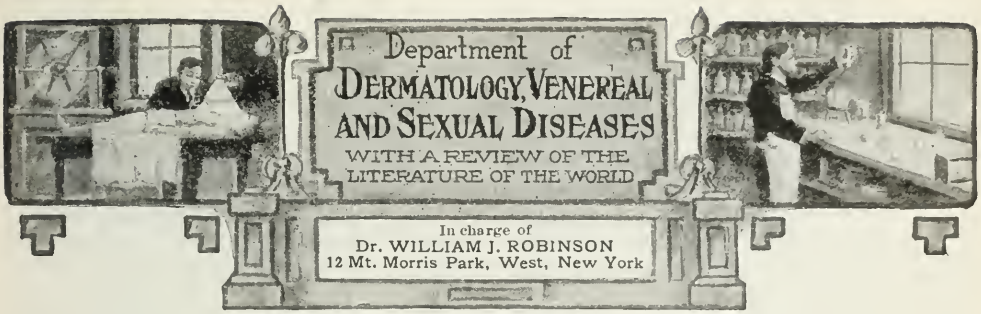
Small condylomata of the vulva may be best removed by scissors or Paquelin cautery, under cocaine anesthesia when the patient will consent, the cautery being best. But when the patient insists upon mere local applications this mixture may be used:

Salicylic acid ..... 2.00 (grs. 30)
Acetic acid, pure .... 30.00 (oz. 1)

Touch every spot a number of times every second day, using a camelshair brush or a pledget of absorbent cotton on a probe. It causes but trifling discomfort. Large growths must all be removed by cautery.

FOR FLATULENCE OF PREGNANCY

Many pregnant women complain of flatulence, with or without "morning sickness." The best remedy is one gram of the sulphophenolate (sulphocarbolate) of sodium dissolved in water taken just after meals. In delicate patients half this dose may be sufficient.



GONORRHEA AND ITS COMPLICATIONS

The fifth paper of the series, dealing with the subject of Prostatitis; a review of its modern and successful treatment

By WILLIAM J. ROBINSON, M. D., New York
Editor of the "Critic and Guide"

PROSTATITIS.

CASES of prostatitis, both acute and chronic, as a result of gonorrhea, are unfortunately seen but too frequently, and I cannot help but think that a good deal of the disease is not the direct inevitable result of the gonorrheal process, but is brought on by improperly administered or irrational treatment. Unclean syringes and strong, irritating, especially self-administered injections have a good deal to answer for.

Acute prostatitis requires very careful and very gentle treatment if we wish to restore the gland to an absolutely normal condition and not have it pass on to a subacute or chronic stage.

The patient should at once be put to bed. There can be no exception to this. All instrumentation should be stopped, but there is no objection to irrigating the entire urethra with a warm saline or boric acid solution. Internally a mild alkaline and antiseptic mixture should be given. The following is a good formula:

Potassii citratis.....drs. 2
Potassii bicarbon.....drs. 4
Arbutini.....grs. 8
Ext. tritici fl.....oz. 1
Aquae q. s. ad.....ozs. 8
Sig.: A tablespoonful every four hours.

At the same time give hyoscyamine hydrobromide in milligram (1-60 grain) doses, until any symptoms of frequent urination, strangury, etc., have been relieved. The bowels, it goes without saying, must be moved freely, as anything like straining at stool is very injurious. At the same time diarrhea must be guarded against. I have seen a number of cases which became very much aggravated by a diarrhea which was superinduced by the administration of strong cathartics, Epsom salt, etc. The best way, perhaps, of moving the bowels in such cases is by the aid of an enema. Where the rectal and vesical tenesmus is very severe, suppositories must be administered and the following is the best formula:

Ichthyol or thigenol.....min. 1
Morphine sulphate.....gr. 1-4
Atropine sulphate.....gr. 1-150
Oil of theobroma.....gr. 15

For one suppository. Insert one three to five times a day.

Hot rectal injections I cannot recommend unqualifiedly. They often act wonderfully well—quickly relieving the sense of pressure, tenesmus, and making the patient feel altogether more comfortable. But on the other hand I have seen many cases where they unmistakably produced an aggravation of

all the symptoms. I have seen the temperature—taken by mouth—become elevated after hot rectal irrigations. And there is no way to tell beforehand which way they will act. The same thing with ice-cold applications or irrigations. In some cases all the symptoms are quickly alleviated, in others greatly aggravated. As a general thing, however, I would state that, in this country at least, more people can stand and are benefited by heat than by cold. I said "in this country at least," for in Germany the reverse seems to be the case. This may sound strange, but it is so. Cold in various forms and in various diseases is used much more frequently than it is here and *it seems to act more beneficially* than it does here.

The diet should be of the mildest and simplest kind. In no gonorrheal complication is it more important than in acute prostatitis. Milk broths, cooked fruit and vegetables should suffice.

In case there is retention of urine, a hot rectal injection should be given. This alone often suffices to render micturition easy. Hot applications—either hot compresses or hot water bags—to the perineum and the region of the bladder are very useful. Where these means fail, the urine must be drawn off by a soft catheter. It is well after catheterizing to inject into the bladder about two, or three ounces, of a one per cent boric acid solution or the following:

Boric acid.....grs. 15
Salicylic acid.....grs. 2
Warm sterilized water.....ozs. 3

Treatment of Chronic Prostatitis

This is a frequent accompaniment of chronic urethritis. Before the gland has undergone anatomic changes, the condition is in my opinion readily cured. Prostatic massage is certainly useful, and in cases in which the gland is enlarged, soft and boggy, it is indispensable. But that very much damage is being done by indiscriminate, too frequent or too forcible massage, there is not the slightest doubt. I have seen a number of cases in which acute inflammatory phenomena of both the prostate and bladder and even of the rectum were caused—and the causation could be directly traced—by prostatic massage. Unfortunately, with some physicians and in some dispensaries prostatic massage seems to be a kind of a fad. Only last week I saw a case of severe vesical tenesmus and strangury, with pyuria and hematuria following immediately upon a prostatic massage performed by the aid of Feleki's instrument. Twice or at most thrice a week is as often as massage should be performed and it is superfluous to add that it should be performed in the gentlest possible manner.

We have several remedies which locally applied have a good effect in chronic prostatitis. One of them is a solution of thymol iodide or europhen in liquid petrolatum. But the petrolatum must be of the purest obtainable quality and we must make sure that the solution is undecomposed. For if decomposed it will contain free iodine, which may prove very irritating to the urethra and bladder. A few drops of this solution is deposited in the prostatic urethra by the aid of a syringe and a soft catheter. I prefer a Guyon syringe, but a Bumstead syringe, or any syringe with a long nozzle may be used. Suppositories are also very useful and I often use the following:

Ichthyol or thigenol.....grs. 3
Potassium iodide.....grs. 2
Sodium thiosulphate.....gr. 1-2
Morphine sulphate.....gr. 1-4
Cacao butter.....grs. 20

M. F. Suppos. No. 1. Tod. doses xxx. Sig.: One suppository twice a day.

Occasionally I leave out the potassium iodide (and of course also the sodium thiosulphate which is used merely to prevent the setting free of iodine) and use mercurial ointment instead. The prescription then reads:

Ichthyol or thigenol.....grs. 3
Unguenti hydrargyri.....gr. 1
Morphini sulphatis.....gr. 1-4
Ol. theobromae.....gr. 20

M. F. Suppos. No. 1. Sig.: One twice a day.

Painting the rectal surface of the prostate by the aid of a rectal speculum, with the solution of aristol-europhen in petrolatum

is also useful. If this is inconvenient use the following suppository:

Aristol (thymol iodide).....grs. 2
Europhen.....gr. 1
Morphine sulphate....gr. 1-8–1-4
Atropine sulphate.....gr. 1-150
Butyr. cacao.....grs. 20

Under the treatment outlined above, the subjective and objective symptoms of chronic prostatitis will disappear rapidly. It goes of course without saying, that if the prostatitis is merely a part and parcel of chronic urethritis, the latter must receive appropriate treatment, as outlined in the previous chat.

THE CAUSES OF STERILITY

Dr. George Gray Ward, Jr., summarizes his conclusions as follows:

1. That, as conception is dependent upon the four essential factors of healthy spermatozoa, normal ova, the union of the same and the proper implantation of the fertilized egg, sterility is most frequently dependent upon acquired pathological lesions and congenital defects which interfere with one or more of the above mentioned essentials.

2. That a large number of cases of acquired sterility are due to pathological lesions producing such destructive changes in the tubes and ovaries as to mechanically prevent the union of the spermatozoa with the ova.

3. That gonorrhea is the most frequent cause of such destructive lesions.

4. That acquired sterility in a large number of instances is due to chronic endometritis which produces such pathological changes in the endometrium as to prevent the proper implantation of the impregnated ovum.

5. That the cases of sterility associated with flexions, displacements, subinvolutions, fibroids and other neoplasms, are not due to these conditions per se, but to the associated endometritis which prevents proper implantation.

6. That a fruitful cause of an unhealthy endometrium and tubal disease, which either singly or together tends to prevent union of the male and female elements and proper implantation, is the chronic inflammation and congestion of the uterus and adnexa incident to subinvolution or sepsis which so frequently follows abortion, especially if treated by the expectant plan.

7. That we must be impressed by the great importance of gonorrhea in its relation to sterility, when we appreciate that it not only renders the woman sterile, but is responsible nearly always, for sterility in the male, thus being an etiologic factor in about 70 per cent of the cases.

8. That, finally, as in nearly all instances of sterility in the woman due to gonorrhea, the infection has been innocently acquired by the wife from her husband, the fault lies with the man in more than two-thirds of all cases.

ENURESIS AND ADENOIDS

Dr. V. Lange does not agree with the opinion entertained by many that enuresis is dependent upon or closely connected with adenoid vegetations. Of the 39 patients, eight had adenoids, three had retronasal catarrh; the rest were normal. In seven of the cases operated upon the operation had no influence, only in one a certain improvement could be noticed. The author is of the opinoin that enuresis is in most cases a neuropathic affection.

TREATMENT OF ACUTE GONORRHEA

The essential treatment, may, says Dr. A. E. Smith, be taken up under three heads: First, elimination; second, antisepsis and asepsis; third, diet.

Elimination.—He usually begins his course of treatment by giving calomel, two grains. This he gives in 1-4-grain doses every two hours for eight doses and follows it with a full dose of salts the next morning. He then gives a diuretic, combined with an antiseptic such as hexamethylene tetramine, fluid extract of couch grass, syrup of lemon and water. This produces elimination through the bowels and kidneys. He orders

a hot bath every night at bed time; this promotes elimination by way of the skin, also brings the blood to the surface, which tends to equalize the blood pressure, thereby reducing the tendency to erections during the night. He keeps the kidneys active and the bowels loose during the whole course of the disease, thus keeping up the eliminative treatment, and positively interdicts any sexual intercourse.

Antisepsis and asepsis.—The patient is instructed to get some good medicated soap and to wash the glans at least twice a day; also he must procure a roll of sterilized absorbent cotton and prepare a clean sack, which is suspended from a band around the waist. He is also cautioned to be extremely careful lest he inoculate himself and others with the virus from his hands after treating himself.

When the case is seen within the first twenty-four to thirty-six hours, treatment is commenced by a thorough flushing out of the parts with a very mild antiseptic solution, usually commencing with a boric acid solution and following this with a 1 to 1,000 lysol solution. This irrigation is given twice a day, and between the flushings the patient urinates every two hours, and then injects about a dram of a 10 per cent argyrol solution. A number of cases treated this way when seen early, have cleared up in from four to six days. The injection is held in for five to ten minutes.

The author has had better results with mild solutions, both for injection and irrigation. The solution that has given the best results in his hands is a lysol solution, 1 to 1,000. This he continues to use for three or four days. If he finds at the end of that time the discharge does not tend to lessen, he increases the strength of lysol to 1 to 500. This strength is kept up for the rest of the time during treatment. He does not increase the strength of the solution for injection, but maintains the same strength during the whole course of the disease, that is, until the discharge becomes very scant and mucoid in character; then he changes to a more stimulating and astringent solution, as alum gr. 1-2, zinc sulphate gr. 1, zinc sulphocarbolate gr. 2, hydrastine hydrochloride gr. 1-16, morphine sulphate gr. 1-12, aqua dest. ozs. 4. Inject one dram every four hours.

For the pain on urination and for night erections the author gives a two per cent solution of cocaine and instructs the patient to inject 1-2 dram and hold in for a few minutes. This will usually give relief, but when the night erections are very troublesome potassium bromide at bed-time, grs. 15 is given.

THE TREATMENT OF GONORRHEAL ARTHRITIS

In Clinical Medicine, for September, I reported briefly two cases of gonorrheal arthritis treated with calcium sulphide and unguentum Credé. I wish to report a few additional data. First, the two patients have remained perfectly well since I dismissed them. I have had occasion to examine them recently and they were quite free from any signs or symptoms of the disease. Second, I have been fortunate enough to treat three more cases, in which I could follow the treatment critically. I am pretty well convinced of the great value of this treatment, in fact I think it is the best treatment at our command at the present time. I saturated the patient with calcium sulphide, given in granule form, and the unguentum Credé was liberally rubbed on and around the joints. In one severe case I also administered collargol internally and by enema. The three patients are all cured.

ACUTE GONORRHEA AGAIN

Dr. Frank E. Estes (*Denver Med. Times*), says, that in the treatment of acute gonorrheal urethritis we have our choice of three principal methods, of which our selection must be governed by the condition present and the habits, i. e., working hours, ability to come to office, marriage, private life, etc., of the patient. These are the "abortive," the "irrigation," and the "injection."

The abortive can be used only in the first twenty-four hours after the appearance of

the discharge. The use at this time of a strong solution of one of the silver salts, by injection and held for ten minutes three or four times a day, may, in favorable cases, effect a cure. The irrigation method is in the majority of cases, the one of choice.

When it is impossible for the patient to follow the routine necessary to the success of the irrigation method, we mus have recourse to the hand injections, and the author's choice of drugs is permanganate of po assium in nearly all cases, having the pat ent use it free y, three or four times a day.

He also gives methylene blue during the whole course of the disease. Whether it acts as a direct gonococcide, sedative to the urethral mucous membrane, urinary antiseptic or ne ve sedative, he does not know, but he believes that its use lessens the danger of complications.

The permanganate solutions will be sufficient he says in the majority of cases. Some cases will, however, need bichloride [bad thing to use.—W. J. R.] either alone or combined with he potassium salt; some will need the silver salts—and some will become chronic.

In addition to the local measures, everything that aids in increasing the patient's resisting power will be of service. The author believes the use of carbonated beverages, "soft drinks," should be much more restricted than is usually the case. While the frequent urination resulting may in some case be of a little benefit, yet in the majority of cases the increased irritation will more than overbalance the good resulting from the irritation.

RATIONAL TREATMENT OF ECZEMA

Knowing eczema to be a purely local disorder, the therapy is principally local, says (*Med. Herald*) Dr. Alfred Schalek, Prof.of Dermatology, University of Nebraska, but attention must also be paid to anys existing constitutional complication with aggravating tendencies. The question of diet needs consideration only in patients whose mode of nourishment is injudicious; alcohol, tea, coffee are better prohibited, or at least limited because they cause congestion of the inflamed parts and so increase tension and itching. It i also advisable, for the same reasons, to reduce the albuminoid foods in plethoric subjects and order a diet consisting mainly of milk, cereals and vegetables. A specific internal treatment is not known; arsenic, an old standby with many and given indiscriminately, is often responsible for considerable mischief, and is better left alone entirely. Our old and tried methods are still recognized as the most efficient if applied at the right time and in the right way. Since the technic of their application is very important, the physician should keep the patient well under observation. No results are likely to be gained if the patient is given instructions for a long stretch of time with the order to report occasionally. On the contrary, he ought to be seen frequently, every phase of the disease watched and the remedies changed in their strength or discontinued entirely if not up to expectation. Only small quantities should be prescribed at the start, until the individual sensitiveness or existing idiosyncrasies are known.

An acute inflammatory condition with active hyperemia, swelling, heat and profuse exudation needs absolute rest, protection from irritation and prevention from interference with the healing tendencies. Any occupation which was active in bringing on the eruption must be stopped; half measures will rarely be sufficient. Cleansing of acute eczematous patches is necessary, but water is injurious, sometimes even in chronic cases; it is best to use sweet oil to remove the detritus, dirt and crusts, or if water is insisted upon, it should be made alkaline and be followed by alcohol. The local applications must be soothing and protecting, should relieve pain and inflammation. Occasionally a simple dressing alleviates the suffering through exclusion of the air. Lotions of acetate of aluminum, subacetate of lead or boric acid may still bring the skin to a normal condition if the deeper structures are not involved. Smooth indifferent powders, like talcum

stearate of zinc and others, serve a similar purpose. After the acutest symptoms have subsided, ointments, especially such of pasty consistency, are preferable. Lassar's paste, which is their type, containing zinc oxide, starch and a fatty base, protects the surface and being porous promotes absorption of the secretion. Drugs, furthermore, called for by special indications, can be added to it.

Contrary to our aim in the acute stage, we rely mainly on stimulation in the subacute and chronic conditions, characterized by passive hyperemia, infiltration, scaling and fissuring. Here reducing remedies are indicated to remove the older inflammatory changes in the deeper layers. Tar and its derivatives represent this class. To get their full benefit the tar preparations must be rubbed into the surface with some force. The more convenient preparations are the liquor carbonis detergens, manufactured in England, and so far not successfully imitated in this country, and anthrasol, recently brought on the market in Germany. The latter has the further advantage of being colorless, permitting a more careful observation of its effects and a quicker recognition of unexpected irritations. If these drugs are not tolerated well, or in very pronounced infiltrations, the result of continuous exacerbations, their application must give way to more energetic expedients.

The clinical appearance of such cases is characterized by diffuse, dark-red, infiltrated patches, partly with raw surfaces, partly covered with crusts and scales. Here it is necessary to destroy the superficial pathological layers in order to permit the above-named drugs to exert their influence, and this is done with strong alkaline soaps or with diluted liquor potassæ; opening the deeper seated vesicles and giving the closed-up exudation free exit may further benefit the patient by relieving promptly the intense itching.

This treatment, which is repeated weekly until relapses cease, has, however, the disadvantage of being painful and liable to work harm if not employed only in strictly indicated cases. A chemical compound of acetic acid and pyrogallic acid, by the name of lenigallol, seems to accomplish the same results without the drawbacks of the former. It does not affect the normal skin, but coming in contact with pathological tissues develops slowly and painlessly mild macerating and cauterizing properties. It is applied as a 10 per cent lenigallol zinc paste for twelve hours, and usually in this time softens the infiltration, loosens the crusts and stops the itching; after this has been accomplished the tar treatment may be taken up again and will produce better results.

OINTMENT FOR PSORIASIS

In the November issue of CLINICAL MEDICINE, J. D. D. (Query 5116), asks for treatment for psoriasis. The following ointment is absolutely the best local application. The rapidity with which it removes even the most chronic and indurated patches is really marvelous. I say this from experience in my own practice and in that of several clinics. The formula is:

Chysarobin	Gms. 5
Salicylic acid	Gms. 5
Oil of cade	Gms. 10
Green soap	Gms. 10
Petrolatum	Gms. 70

To delay the dermatitis caused by this ointment apply the following:

Zinc oxide	drs. 4
Bismuth subnitrate	drs. 2
Starch	drs. 2
Petrolatum	ozs. 2

This treatment will not prevent relapses, but it seems to postpone them longer than any other application. That internal treatment is necessary at the same time goes without saying.

NITRIC ACID INTERNALLY IN PSORIASIS

At a meeting of the New York Dermatological Society (Sept. 25, 1906), Dr. L. D. Bulkley exhibited a woman who had been suffering with extensive psoriasis of many years' standing and in whom every conceivable treatment was tried—sometimes with fair effect, sometimes only aggravating the disease. Pure nitric acid was administered

beginning with two, three drops, three times a day and gradually increasing. When the acid was begun almost the entire surface had been covered with large, red areas, presenting an appearance of dermatitis exfoliativa; often, however, the appearance was one of typical psoriasis. The clearing up of one area after another under the nitric acid was very striking. There had been no other treatment except occasional applications of lubricating ointment.

FAMILY ENURESIS

That nocturnal enuresis may be present in an entire family is seen from a report by Dr. Stern (*Central. Harn. Sexual Org.*, Oct. 1906). The father was a neurasthenic and the mother suffered with enuresis when a child. All five children were sufferers from this disagreeable affection. According to the author the cause of enuresis is to be found in a hypoplasia of the spinal or ganglionic centers, which control the innervation of the vesical sphincter.

DOES SYPHILIS IN SOME CASES SPONTANEOUSLY ABORT IN THE PRIMARY STAGE?

Under the above caption Dr. Robert W. Taylor discusses this important question. (*Am. Jour. Surgery*, Nov.) Most physicians who treat large numbers of venereal patients have met with cases of undoubted chancre, as far as consistence, etc., was concerned, in which secondary and tertiary manifestations of any kind failed to make their appearance, and this without any specific treatment whatsoever. In such cases the physician is apt to assume that his diagnosis of chancre was wrong, that he had to do with merely a chancroid, etc. This is, however, begging the question. We personally can see no improbability in syphilis being aborted in the first stage. We believe in the possibility of abortion, spontaneous or artificial, of any disease, and syphilis is no exception. The author cites ten cases, four from his own practice and six from literature, most of which offer pretty conclusive proof that a person may have a true Hunterian chancre, and with no mercurial treatment, secondary and tertiary symptoms may fail to develop. Such cases are, it is admitted, very rare, but they do occur and it is well to be aware of the fact.

AN OVERLOOKED SOURCE OF ALIMENTARY PENTOSURIA

Prof. V. Jackson had a patient who had been treated for several years by several physicians for diabetic glycosuria. He had pentosuria and the source of it was found to be fruit juices of which the patient partook considerable quantities. A quart or a quart and a half of fruit fuice, will cause pentosuria which lasts about twenty-four hours. Trommer's and Nylander's test may mislead the physician and in every doubtful case, we should make sure if the patient is using fruit juices, which are partaken off so much nowadays, and we should apply the fermentation test.

DRY ECZEMA OF THE SCALP

In dry scalp eczema of the scalp apply at night a mild (1 or 2 per cent) tar ointment or still better the following combination:

Ichthyol
Oil of birch, of each grs. 15
Oil or cade
Zinc oxide, of each grs. 75
Lanolin
Petrolatum, of each oz. 1 1-2

In the morning shampoo the scalp with a superfatted soap.

AN EXCELLENT COMBINATION IN SEBORRHEA, ACNE, ETC.

Our French friends are not dismayed at the ridicule to which polypharmacy has been subjected of late years, believing as they do that from several synergistic and modifying agents intelligently combined we can obtain greater success than from one remedy. An ointment which is used very largely at the Hospital St. Louis, Paris, and which is known as Baume de

Duret, after the hospital pharmacist who suggested the mode of preparation (not the principal ingredients) has the following composition:

Picis liquidae	drs. 4 1-2
Ol. cadini	drs. 4
Resorcini	dr. 1-2
Menthol	drs. 1 1-2
Guaiacol	drs. 1 1-2
Camphorae	ozs. 1 1-2
Sulphuris precip.	oz. 1-2
Boracis	ozs. 1 1-2
Glycerini	ozs. 2
Acetoni	ozs. 3
Ol. ricini	ozs. 1 1-2
Lanolini	ozs. 3 1-2

It is necessary to state that this preparation cannot be properly made by simple mixing. The sulphur is not merely kept in suspension, but is dissolved by heating it in a closed vessel to 130°C. in the mixture of tar, oil of cade and lanolin. The acetone besides being an excellent solvent, miscible both with water and fatty substances, possesses great penetrating powers, and is also sedative in its effects. This ointment possesses also antipruritic properties and may be used in any conditions accompanied with itching. Besides seborrhea and acne, this ointment is also used with good success in impetigo, sycosis, eczema, etc. Suppose Dr. Abbott puts it on the market? Modified, perhaps, but essentially the same. Might prove a good seller!

ITEMS WORTH REMEMBERING

The public at large has no conception of the amount of suffering women are undergoing as a result of gonorrhea presented to them by their legal lords and masters. If it knew the true state of affairs it would stand aghast and would demand a sanitary certificate as a prerequisite of a marriage license.

In spite of the condemnation that corrosive mercuric chloride (bichloride of mercury, corrosive sublimate) as a urethral injection received at the hands of careful observers, we still occasionally come across practicians who use it and order it for that purpose. It is a very bad practice. It ruins the mucous membrane and more than any other salt is liable to lead to stricture.

In gonorrheal rheumatism saturate the patient with calcium sulphide—the best obtainable—and apply colloidal silver ointment to the joint.

SUPPOSITORIES FOR PROSTATITIS

Ichthyol	grs. 3
Methylene blue	gr. 1
Morphine sulphate	gr. 1-4
Atropine sulphate	gr. 1-150
Iodoform	gr. 1-2
Cocoa butter	grs. 20

Make one suppository. Use one twice or three times a day. I have used this combination (original) with excellent results.

IN PROSTATIC HEMATURIA

In three severe cases of hematuria in prostatic patients, Dr. Deschamps used with surprising success the following combination:

Antipyrin	Gms. 5. to 10.00
Gomenol	Gms. 10.00
Sterile oil	Gms. 100.00

Of this emulsion he injected 15 Cc (one-half ounce).

PRURITUS VULVÆ

℞

Menthol	grs. 8
Quin. sulph.	grs. 20
Ac. carbolici	grs. 24
Ungt. hydrarg. nit.	dr. 1
Ichthyoli	drs. 2 -1-2
Lanolini	drs. 6
Ol. ricini	drs. 10

M. et ft. ungt. Sig.: Apply freely after washing the parts with hot water.

GLEANINGS from FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.

THE CAUSE OF COATED TONGUE

Conditions which favor the coating of the tongue. Analogy between the shedding of epithelia in the stomach and mouth

MODERN authors, with the exception of C. A. Ewald, to a certain extent regard the coated tongue in disease as wholly insignificant, although they mention its varied conditions. Thus Fleiner, who gives a short chapter to "The Coated Tongue," concludes by saying that, "by and for itself the coating of the tongue has no special significance." And although this symptom is met with in most diseases as a daily occurrence we have no sufficient explanation of it given.

Observing the tongue in febrile diseases, especially in scarlet fever and in typhus, we must disagree from the opinion that its coated condition is of insignificance. There is hardly any need of mentioning that the appearance of the tongue must be influenced by its own diseases or that of its surrounding tissues of mouth and nasopharynx. When therefore we observe the tongue and duly estimate the significance of its coating we shall have to inspect carefully the oral and nasopharyngeal cavities. In the following considerations, we shall refer to such cases only which are not complicated by those circumstances, and shall examine whether or not the notion of dyspepsias and their effects give us any explanation of the varied appearances of the tongue.

Types of a definitely running parallelism between superacidity and the dark red, moist and clean tongue must be something usual for the physician who is familiar with them. But on the other hand in certain dyspepsias, in gastritis subacida and anacida, here we may meet with a pale tongue and a corresponding thick and adherent coating. No difference on what the dyspepsias may depend, whether on fever, congestive catarrh, neoplasms, or whether they are idiopathic.

A fundamental property of the tongue is the extraordinarily rapid shedding and the normally corresponding regeneration of the surface epithelium, for a few hours after the thick coating has been removed from a dyspeptic tongue it is restored again without any observable loss.

That in superacidity of the stomach the surface epithelium of the tongue is just as inexhaustively restored after the shedding of the superficial layer we can cite as evidence the microscopic finding of stomach contents before food was taken. In such superacid contents we find actually in every field of vision a great number of more or less destroyed epithelia, or say better, epithelial nuclei especially. These take up in some specimens the entire microscopic field of vision. In the contents of the jejune stomach of a dyspeptic with coated tongue we find in the microscopic

field epithelia or their nuclei, usually not in such crowded quantity as we do in the case of superacidity. Especially in cases of anacidity with heavily coated tongue there we must usually search about for epithelia and their nuclei.

Shedding of Epithelia

It is to be assumed with certainty that this noteworthy difference in the microscopic picture from the contents of the jejune stomach is shown in part by the different conditions of the tongue epithelia. The microscopic picture from the contents of the jejune stomach shows a surprising analogy in the findings, and prove that the superficial epithelia of the tongue in superacidity are formed in the same quantity as in dyspepsias, but that they are shed in a more complete way. In the case of the pale, loaded tongue of dyspeptics we find a lack of force in shedding the superficial epithelia, and correspondingly a tongue-coating of more or less thickness, which corresponds also in its greater or less adherence to the degree of the dyspepsia in question.

The enormous blood content of the tongue would allow, on purely theoretical grounds, to expect that its metabolism would in great measure depend upon the nourishing quality of the blood. In a former labor (*Berliner Klin. Wochenschrift*, 1905, No. 5) we have shown that one result of a superacidity of the stomach is a supernormally nourished blood, and that a lack of acidity of the stomach results in anemia. Hyperemia means for the tongue also an increase of the metabolism, i. e., specially in the shedding of its superficial epithelia. Anemia means here too a weakening of the metabolism, i. e., a lack of force in shedding the superficial epithelia. The nourished condition of the blood depends upon the acidity of the stomach, and this explains therefore, unconstrainedly also, that a clean tongue is the result of a normal up to a supernormal acidity of the stomach. A result of a lack of gastric acidity is, according to the above rule, anemia, a result of which again is a weakness in the shedding of the tongue's epithelia, i. e., a coated tongue.

The old and generally current assumption, that the tongue gets cleaned during and by the mastication of food can not be maintained when we simply know how much effort it takes to clean a loaded tongue mechanically. Yet the cleansing effect of the eating of meals is not to be entirely denied, and that for another hitherto not regarded reason. Compare a pale, heavily coated tongue of a jejune stomach with its appearance sometime after food was ingested and you will notice an evident difference in the plethora of the organ. The correctness of this phenomenon any one can prove on himself every morning, and this strongly supports the explanation we gave above of the origination and disappearance of the tongue's coating.

Tongue Coat with Hyperacidity

Further investigations will teach us how the heavy coating of a tongue may come about from complications, even when there is gastric hyperacidity and in the absence of all disturbances in the surrounding tissues of the tongue. In cases of superacidity without any other symptoms we usually find a clean tongue. In single cases also of gastritis subacida and anacida with existing anemia we also find clean tongues. Further investigations will have to teach us whether or not these exceptions depend upon a lack of proliferation of epithelium, or also upon a rich development of blood vessels in the tongue.

Our considerations of the causes of tongue coating bring us back in the circle to the causes of anemia in the lack of gastric acidity, and the therapy for both will have to be the same.

The empiricism of the old physicians who saw in the tongue, as in a mirror, the processes of digestion and of the composition of the bodily juices will, therefore, be victorious against the opinion of the moderns who deny any significance to the appearance of the tongue as to the processes of digestion.—(Dr. Rollin of Stet-

tin, in *Berliner Klinische Wochenschrift* No. 18, 1906).

EXPECTORANTS

II

If it be true that bacterial infection is at the foundation of all inflammations then disinfectants should consequently be most extensively used. But strangely enough such a causal therapy is little in vogue. Theoretical expectations from disinfectants seem not to have been realized, and the only use made of them is in the fetid changes of the air passages in tuberculosis. This does not agree with my experience as I have frequently seen such surprisingly rapid healing of the air passages from acute inflammation after the use of disinfectants, that it is impossible to doubt their healing efficacy. Especially is this the case in autumnal and spring catarrhs of the bronchi, which appear epidemically and are incorrectly designated as influenza.

You know that a great number of disinfectants are recommended especially in the treatment of pulmonary tuberculosis, and that chemists put continually new combinations on the market. Their number is so great that time does not allow me even approximately full examination of all of them, but of a considerable part I have enough experience to form a judgment. I will not burden you by recounting all the disappointments I have lived to see. Often and again I have come to the conviction that the newer disinfectants had no advantage over the two older ones, creosote and benzosol, to which I have given the preference for many years. Benzosol I prefer because most patients tolerate it and it increases their appetite. I give it in the form of benzoylguaiacol usually 0.5 (gr. 7 1-2) t. i. d. combined with *eleosaccharum menthae piperitae*.

Creosote is objected to often by patients on account of gastric oppression, eructations, spoiling of the appetite, and vomiting. The occurrence here and there of a dark greenish discoloration of the urine is of no importance at all. Preferably I give creosote in Sommerbrod's gelatin capsules which contain creosote 0.05 (gr. 5-6) and balsam tolu 0.15 (gr. 2 1-4), one every two hours.

I confess not to have seen great results from these in the treatment of pulmonary tuberculosis, and the number of undoubted moderate good results too are but few. If you are to help a patient suffering from pulmonary tuberculosis then do not rely upon these or any other disinfectants but prescribe for him good air, nutritious diet and a rational mode of life.

In fetid diseases of the respiratory passages my experience teaches me to rely more on the balsams first than on disinfectants, then after a long while with these I add more disinfectants and get results at last, in which last I make use again of either benzosol or creosote.

Of medicinal expectorants I can recommend only those of which I gained experience at the bedside and of these too I limited myself to avoid prolixity. Apart from secret remedies and some very near such I hear of good results said to have been obtained in chronic bronchial catarrh from fluid extract of hydrastis 20 to 30 drops four times daily (Saenger) and that salicylic acid and antipyrin too were prescribed, whose good results were ascribed by Spiess to their anesthetic properties.

I must mention at this time briefly that certain physical methods of treatment can favorably influence expectorations and the diseases that cause them. Moisture of the air of the sick chamber steadily maintained gives great relief to some patients. To maintain this by evaporation, spray, and the like, ingenuity will have to be exercised according to circumstances. In fetid diseases of the air passages I would add turpentine or creosote to the hot water.

The position of the patient in the bed is also able to promote and ease expectoration, and we often see patients assuming such positions themselves. Quincke recommends patients with abundant bronchial secretions to assume every morning a flat supine position for two hours so that the secretions may flow more easily

into the larger bronchi and be expectorated. The foot of the bed was also advised to be raised and some patients were advised to lay prone on the abdomen.

Rhythmic compressions of the abdomen and of the lower parts of the chest are under circumstances able to ease the expectoration.

Patients with chronic diseases of the air passages have found great relief in expectorating while respiring compressed air in the pneumatic chamber or portable breathing apparatus.

Climate and balneotherapy are of great importance, and even simple change of air is often surprisingly beneficial.

The subject of physical therapy is too extensive to be treated at present, while our object was to show you that much can be accomplished with expectorants if we have learned at the patient's bedside to prescribe the right remedy in the right place. —*Deut. Med. Wochenschrift*, No. 12, 1906.

PUERPERAL FEVER, LOCAL CAUSE

Merletti points out a valuable fact by which to differentially diagnosticate in puerperal fever, whether it arose from a genital or from any other organ. If from the genitalia the pulse rises parallel with the fever, but if from any other organ the pulse remains normal or only slightly accelerated though the fever rises to 101.3° F. and 107° F.—(*Accad. delle Lc. Med. e natur.*, Ferrara, 1 Feb. in *W. M. W.*)

RUMEX CRISPUS

Rumex crispus (yellow dock) deserves to occupy a prominent place among the iron-holding plants, according to Messrs. A. Gilbert and P. Lereboullet. Its roots possess the property of fixing the iron of the soil which it transforms into organic iron in a loose combination with the tissues of the plant especially abundantly in the combium layer of the root. Moreover the amount of iron in the plant can be increased by cultivation by increasing the iron of the soil and also watering the plant with a solution of iron carbonate. By such cultivation M. Saget showed that the stem and leaves of the plant increased the iron content from 28 to 269 milligrams for every 100 grams of the dry substance, and that of the root from 75 to 447 milligrams, and he increased the iron to one gram and a half for every 100 grams of the dry plant. This ferruginously augmented root Messrs. Gilbert and Lereboullet used therapeutically in the powdered form, adding it to the daily ailment of anemic patients with good effects. The dose was from one to three grams daily in chlorosis in chloranemia of tuberculosis and symptomatic anemias. They saw a general amelioration of the patient's condition under this medication.—(*Gazette des Hopitaux* 1906, p. 705).

BACTERIA IN ARTIFICIAL ICE

Mr. Paul Saserdote gives in *la Presse Medicale* the following information, the importance of which cannot fail to interest most persons: A cake of ice obtained by artificial congelation of water is characteristically transparent all around except the whole length of the middle of the block which is opaque. Irrespective of the water employed, whether impure from dissolved calcareous salts, or organic matter in suspension, the melted water from the pure transparent part will always be nearly pure, while the water obtained from the central part will be excessively impure. And the bacteria too do not escape this rule; the clear part of the ice is almost exempt from them, while they concentrate themselves in the central opaque part of the block.

The slower the congelation is allowed to procede the more perfect will the separation produced be. In certain cases this separation may be as complete as in distilled water, and as the condensation of the vapor of water constitutes pure water so does equally the melting of the clear parts of a cake of ice. Hence, choose only the clear transparent parts of an ice cake. —(*La Province Medicale.*)

BURSTING OF THE STANDARDIZATION BUBBLE

Why standardization is failing to attain the ends sought by it—greater exactitude of dosage and more dependable remedies. The remedy

WHEN manufacturers of galenical preparations began to announce that they were offering assayed or standardized fluid extracts and tinctures, they showed that they no longer could disregard the constantly growing demand on the part of the medical profession for a certain amount at least of accuracy in therapeutics. They no longer could disregard the fact which was becoming gradually more and more patent to the discriminating part of the profession, that in many cases the use of the uncertain galenicals was nothing short of criminal. Standardization was a step in the right direction. It showed a desire to give the profession preparations of more or less uniformity. But standardization is merely a step, a single step, in the evolution of an exact and definite materia medica, and to stop there would be to rest on a broken reed.

I believe the arguments I am about to present are absolutely unanswerable, and I should be pleased to hear what can be said in their refutation.

First, I shall show the absurdity of standardization. Let us take aconite, for instance. The Pharmacopeia gives an extremely troublesome method for standardizing the fluid extract of aconite so that each 100 Cc. of the fluid extract may contain 0.4 gram of aconitine. Now, what is all the trouble for? Either aconitine represents the virtues of aconite, or it does not. If it represents the virtues of aconite, then why not use aconitine *per se?* For even the most enthusiastic believer in galenicals will admit, that if we have an active principle which fully represents the parent drug, the administration of such active principle is in every way preferable. We need only mention the smallness of the dose, convenience of administration, absolute exactness of the dose administered, unchangeability, invariability through evaporation, etc. If, on the other hand, the aconitine does not represent the full activity of aconite, if the aconite possesses something else of value besides the aconitine, something mysterious, which cannot be isolated and standardized, then to what purpose is the standardizing for aconitine?

In the case of other drugs the absurdity is still greater. Pilocarpus, for instance, contains two principal alkaloids, pilocarpine and jaborine. The action of jaborine is directly antagonistic to that of pilocarpine. Now, of what good is it to know how much pilocarpine a certain fluid extract contains if we do not know how much jaborine it contains? Suppose the fluid extract of pilocarpine does contain 0.4 per cent of pilocarpine, as the Pharmacopeia directs. Of what good is it if we do not know whether the amount of jaborine it contains may not entirely overshadow the action of the pilocarpine? It is clearly evident that a fluid extract with but 0.3 or 0.2 per cent of pilo-

carpine, but a very small amount of jaborine, may still prove more efficient than a fluid extract of 0.4 per cent of pilocarpine, but a very large percentage of jaborine. Will any honest standardizer kindly answer the above arguments?

I have shown briefly but conclusively the absurdity of standardization. I shall now show what a broken reed standardization is, demonstrating its utter unreliability, and in many instances its utter worthlessness.

Let us assume for the present, for the sake of argument, that standardization really standardizes, that when a fluid extract just finished is stated to contain a certain percentage of alkaloids, it really contains that amount. What guarantee is there that the same percentage will be contained in it a month, or six months, or a year later? Are not the temperature, exposure to air, evaporation of menstruum, very liable to cause the precipitation or decomposition of the active principle contents, or change their relative proportion? That this is not merely a possibility or probability, but an actual fact, will be seen from the statement made by one of America's foremost wholesale druggists.

The New York Board of Health has recently been investigating the condition of the drugs purchased directly from the wholesale trade. The investigation disclosed the shocking fact that 72 per cent of all the drugs purchased from the wholesale trade were below standard, and but 28 per cent came up to the Pharmacopeial requirements. Many fluid extracts were found practically or entirely devoid of alkaloidal contents. Mr. William Jay Schieffelin, referring to the Board of Health findings, made the following significant statement: "Some of the extracts which the Board of Health reported below standard were found to be of proper strength when made, but the active principle had deteriorated. This led to the suggestion, which has been approved and adopted by the manufacturers, that a dated label be placed upon all such extracts, and that they be sold in small containers, so that the druggist can constantly have a fresh supply."

Here is a statement that the active principle in galenical preparations may and often does deteriorate. If this is the case, of what value is standardization? Suppose a fluid extract of cholchicum did contain when made 0.5 per cent of colchicine, what guarantee have we as to how much it contains now—when six months or a year old? It is well known that many fluid extracts and tinctures are kept on the druggists' shelves for years, and to offer such galenicals to the physician as reliable weapons in the fight against disease, because at some time in the past they were standardized, is farcical in the extreme.

But let us look a little closer into the subject of standardization. The average physician, as well as the average pharmacist, is under the impression that the processes of assay are something definite, perfect, immutable. That when a person states that a certain galenical has been standardized to contain a certain amount of active principle, that it is always so, must be so. The well informed have always known that it is *not* always so; that standardization depended a good deal upon who the operator was and upon the method adopted. In other words, two equally competent operators using the same method of assay might obtain a different result, and the same operator using different methods of assay would obtain different figures. We also knew that several assay methods of the Pharmacopeia were either unreliable or entirely *unworkable*. But something has recently happened which will, or should open the eyes of a good many who worship at the shrine of standardization. At the last annual meeting of the American Pharmaceutical Association, held at Indianapolis, Prof. H. M. Gordin, of the Northwestern University School of Pharmacy, universally acknowledged as one of our foremost authorities in alkaloidal chemistry and standardization, threw a bomb into the Pharmacopeial committee on assays by declaring publicly that several

of the Pharmacopeial assay processes were "completely unworkable." In his paper entitled "Some Alkaloidal Assays," he makes the following statement (*American Journal of Pharmacy*, p. 458, October): "While most of the methods adopted in the U. S. P. of 1900 for the alkaloidal assay of drugs and galenicals are very good, there are a few among them that either do not work at all or are so complicated that they will hardly ever give concordant results in the hands of different chemists. To the first class belong the assays of aconite root, its fluid extract, and the fluid extract of ipecac. In these assays we are directed to filter the first acid liquids obtained in the method, but as these liquids are very thick and slimy they soon clog up the filter and the assays cannot be finished. To the second class belong . . . the assay of extracts of physostigma and conium, and a few others."

In another paper entitled "The Alkaloidal Assays of the U. S. P. of 1900" (see same issue, page 454), Prof. Gordin makes the following statement: "Some of the assay methods of the Pharmacopeia are completely unworkable. Such, for example, are the assays of aconite root, its fluid extract, and fluid extract of ipecac root, in all of which we are directed to filter the first acid liquids obtained in these assays, but as these liquids are very thick and contain sticky resinous substances, the filters are very soon completely clogged, and the assays cannot be finished. This is in accord with my own experience and the experience of several teachers and students in our school."

Now, if our foremost authority on standardization finds many of the Pharmacopeial processes either entirely unworkable or capable of giving discordant results in the hands of different workers, what may we expect from the ordinary chemists in the galenical departments of our various wholesale drug houses?

And in parentheses I would ask this rather indelicate question: How did the various wholesale drug houses standardize, for instance, their fluid extract of aconite according to the U. S. P., as they declare on their labels they did, if according to Prof. Gordin and other most competent chemists, the assay process was entirely unworkable and could not be finished at all?

Prof. Gordin was not alone in his strictures on the U. S. P. methods of assay. Prof. J. M. Francis, Prof. A. B. Lyons, and other speakers agreed with Prof. Gordin, and pointed out serious defects in many of the methods. The subject seemed so important that Prof. Rusby of the New York College of Pharmacy introduced a resolution demanding that the processes be revised, and that a supplement to the Pharmacopeia be issued (see *Bulletin of Pharmacy*, October). This proposition, which is an open accusation of incompetent work, was naturally opposed by the chairman, who suggested as an alternative that the criticisms be referred to the subcommittee on assay processes for such action as the latter might deem necessary. And, we might add, the assay processes of essential oils met with similar criticisms, and the chairman of the subcommittee on assays of essential oils confessed that the processes were admitted without verification as to their workability or correctness! To summarize:

Standardization is useless: (1) When the active principle fully represents the drug it requires no argument that standardization is useless, and worse than useless, because the active principle offers indisputable advantages in (*a*) smallness of dose, (*b*) convenience of administration, (*c*) exactness of dose, (*d*) freedom from objectionable and irritating inert material, (*e*) nonchangeability, (*f*) nonvariability, (*g*) and more rapid absorption. (2) When the active principle does not represent the drug in every respect, standardization of one active principle is worse than useless, because it gives no information as to the absolute and relative amount of the other active principles, and does not provide for the removal of antagonistic principles.

Standardization is unreliable, for even if the galenical preparation, when made, contains the exact percentage of active prin-

ciple, the latter soon begins to deteriorate; changes in temperature, exposure, evaporation, cause a change in the menstruum, which in its turn produces precipitation, etc. That such deterioration is actual, and not hypothetical, has been publicly acknowledged by one of the most prominent manufacturers of galenical preparations.

Standardization is unscientific and imperfect. Processes of assay as found in the Pharmacopeia, which one would expect to be reliable and to give definite results, have been declared by the highest authorities to be unpractical, utterly unworkable—and to give discordant results in the hands of different chemists.

All this being the case—and that it is the case is publicly acknowledged by the manufacturers of galencials and adherents of standardization themselves—is not the question legitimate? What is it all for? Why not go to the root of the matter, give up most of the galenicals, and use, wherever feasible, the active principles instead?

Wm. J. Robinson.

New York.

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We republish this powerful paper from the *Medical Record* of December 29. It effectually punctures the bubble of standardization and shows its essential weakness—rather, its many points of weakness. Standardization of the galenics is a step toward greater accuracy in medicine; but only a step, and a very feeble one. The way once commenced will lead inevitably to the general use of the active principles.—Ed.

SODIUM SULPHATE AN INTESTINAL ANTISEPTIC?

In *The Lancet* for November 10, Maberly asks if sodium sulphate does not possess an intestinal antiseptic power beyond its action as a cholagog and laxative. Giving this salt in dysenteries he noted that the benefits accruing did not depend on the catharsis but were developed in spite of it. By lessening his doses he next secured great benefit from this salt in infantile diarrheas. From this he proceeded to apply sodium sulphate in all septic intestinal conditions with excellent results. To obtain the antiseptic action the doses must be too small to cause laxation, from six grains to a baby in the first year up to a dram for adults, every six hours, given in aromatic waters.

Even in typhoid fever similar results followed, the diarrhea being less and the stools losing their fetor, the temperature falling and the cases running a milder course.

We are too quick at jumping at conclusions, and accepting an easy surface explanation for observed phenomena. Let a few plants acquire repute as remedies for affections of the urinary ways, and as they contain tannin we hurry to attribute the benefits to that principle, and arbutin remains undiscovered. We know the salts are aperients, and we hastily conclude that they are only that and nothing more. When we are told that magnesium sulphate is an anesthetic and paralyzer we laugh at the notion; but when asked how we know it is not we are mute—for we don't know it, we only thought we did.

PNEUMONIA: WITH THE DOCTOR AS PATIENT

I am glad to have the privilege of sending you the account of an alkaloidal triumph which I enjoyed in a case of pneumonia. If the experience, which is only one of many, shall be of help to another seeking man I shall be well pleased.

The patient in question was myself. During the latter part of last January I had been subjected to an unusual amount of exposure. I had done a very trying operation, abdominal, on the 25th of the month and that night, about 2 a. m., I was awakened by a most violent chill and pain in my left side. The chill lasted about two hours and was the most violent one I had ever seen. The iron bed in which I was lying, rattled under my shakings, until it could be heard anywhere on that floor. I was so completely overcome that I could not get my senses together at first and, indeed, it was not until the

end of the chill, about 4 a. m., that I was sensible enough to realize my own condition.

Every breath was a pain and the fits of coughing to which I was subjected tore me like a knife. In short, I suffered all of the typical symptoms of an acute pneumonia, with which we are all so familiar. I had my wife take my temperature and found that it was 99.8° F. I then had her get my little case of alkaloids and prepare a glassful of the aconitine, veratrine and digitalin solution, one granule of each to the teaspoonful, and ordered her to give me one teaspoonful every fifteen minutes. Of course I also began on the calomel and saline "clean-up" program.

At 7 a. m. I was much worse. Temperature 103.2° F. I could scarcely breathe and when I coughed, the pain was so bad that I almost fainted. At 10 a. m. I was so much worse that my wife and her mother decided that I was incompetent and so called in another physician. I was semi-delirious now, but before losing myself I had ordered my wife to keep pouring the medicine into me every fifteen minutes, delirious or not.

The other man arrived at 11 a. m. and found me slightly delirious, temperature 105° F. He made an exhaustive examination, found a decided beginning consolidation in the upper part of my left lower lobe and pronounced the case one of pneumonia, at the same time telling my family that it was not possible to abort it, etc., and that I would be sick for at least two weeks, and probably a great deal longer. He asked me what I was taking and I told him, at the same time insisting that it would stop it. He shook his head and smiled, said he had never heard of it, that pneumonia was a self-limiting disease—and all the things that our "fathers" taught us to say in school. [And right here let me interject that one of our lecturers in college told us that "the attitude of the practician in a case of pneumonia was that of *dignified observation!*" Think of it.

Nevertheless, I begged him to allow me to continue with my treatment, and to *give me nothing else.* He consented for the time being and went away, after giving my wife a very gloomy prognosis. At 3 p. m. he returned. I was then frankly delirious and have no memory of his visit. He found my temperature 105.6° F., the consolidation quite marked, the evidences of pneumonia unmistakable. In the meantime I had been getting my little pills regularly. The physician now told my wife that he could not consent to assume any of the responsibility unless he were allowed to take the medicinal treatment into his own hands. She was so distracted by now that she would have consented to anything, and did so consent. [She explains her lack of absolute confidence in me, even when delirious, by saying that we had been married only three months and she did not know me as well then as now.]

The doctor went to the drugstore and ordered the medicines, which did not arrive until 5 p. m., two hours after he had been there. Another point for the little pocket case. In the meantime, at 4:30 to be exact, I had begun to sweat. When his medicines came, at 5 p. m., I was sweating profusely, my head had cleared up, the pain was all out of my eyeballs, elimination had become established, I was feeling able to take charge of my own case and promptly refused his medicines. When he returned at 11 p. m. I was feeling almost my normal self and was still sweating freely. My temperature was 99.8° F.

We had a long talk. I insisted that I was well on the road to recovery and he that my fever, etc., would return, for, after another careful examination, he *knew* I had pneumonia. He prided himself on his diagnostic ability; the consolidation was unmistakable, pneumonia could not be aborted, etc., etc. He finally left, shaking his head. On his visit at 10 a. m. Saturday, my temperature was normal and I was talking about sitting up. We had another spirited argument about the pathology, treatment and prognosis of pneumonia. Finally he left me, called my wife and mother-in-law out of the room and told

them that while I was apparently better, the fever must inevitably return and not, under any consideration, to let me sit up or move.

I kept taking my own medicine, as above, about every two hours all day and late in the afternoon insisted on sitting up, and did in fact sit up for about two hours. I was very weak and still sweating some, but I was careful to keep from being chilled and kept feeling better all the time. When he came again at 10 a. m. Sunday morning, he found me dressed and down stairs. Everything normal. He examined me again carefully, said the upper third of the lower left lobe was consolidated beyond any question, that it was pneumonia or else he was not capable of diagnosing that disease, and we argued all over the old ground again. I took the medicine occasionally all that day and on Monday morning I went to work and have been at work uninterruptedly ever since—the entire time from the chill Friday morning at 2 o'clock to Monday morning, when I actually went to work, being just two days.

On Monday evening he called me up again, came to see me, we had another long talk and he finally said. "Please tell me where you get that medicine, it beats anything I ever saw."

I will only add that the consolidation did not immediately disappear but that traces could be discovered for about a week.

Business has been rushing with me for the last two weeks. I have had just about all I could do. Considering that I have had my shingle out in this city only six weeks I am feeling greatly encouraged.

F. E. McCLURE.

Detroit, Mich.

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Well, Doctor, you certainly have been through an experience, an experience which we feel sure makes you one of us from this day. A man who has been told by one of the most ethical and able men of his profession that he had pneumonia, that it was a self-limited disease, that it could not be aborted and that the outlook was anything but good; and then, after all this, has gone deliberately about it to treat his own case in the only rational way and with the only result to be expected from such rational treatment—in other words, rapid cure—is not very likely to go back to the methods of the daddies.

We have a feeling, Doctor, that you have started in about right and that this rush of business which has been going on for the last two weeks will continue. People love results; when they call in a doctor they want to be cured. Prognosis does not interest them, especially if the prognosis is not a good one.—ED.

A CASE OF PLEUROPNEUMONIA

November 1, 1906, at 8 p. m. I was called in to see a young lady, eighteen years old, and after examination found the following: Temperature 103 1-2° F., pulse 130, respiration 30, and labored and flushed face. I found her suffering stabbing pains in the right side of the chest, which I diagnosed as pleuropneumonia of the right lung, upper and middle lobes.

I ordered antiphlogistine over the lung to be changed every twelve hours. I gave her six granules, gr. 1-6, of calomel and six of podophyllin gr. 1-6, one of each to be taken every half-hour until all were taken. I then put forty-eight granules of aconitine amorphous, gr. 1-134, into twenty-four teaspoonfuls of water and ordered a teaspoonful every half hour until my return.

I called next morning at ten and found the temperature 104° F., pulse 130. I ordered the medicine continued, with the application of iced cloths on the head until my next call at 6 p. m., when I found the temperature 104 1-2° F., and pulse 130.

I now gave the following: Aconitine, forty-eight granules, dosimetric trinity, twenty-four granules in twenty-four teaspoonfuls of water, and ordered a teaspoonful every half hour until my call next morning at 10 a. m. The temperature was then 103 1-2° F. and the pulse 125. I ordered medicine given as before with iced cloths to the head and anti-

phlogistine to chest. I called at 7 p. m. and found the temperature 104° F. and the pulse 125. I ordered the medicine continued every half hour all night and in the morning at 10 a. m. the temperature was 103° F. and the pulse 120.

I still ordered the medicine continued and at 6 p. m. the temperature was 103 1-2° F. and pulse 120. I gave the medicine in the same doses through the night and next morning the temperature was 102° F., and pulse 110. The medicine was continued as before and at 5 p. m. the temperature was 101 1-2° F. and the pulse 100. The medicine was given as previously ordered for the rest of the night and on calling next morning the temperature was 99° F. and pulse 90. I now ordered the medicine given every hour and at 8 p. m. found pulse and temperature normal, the cough loose and the patient expectorating quite freely. I now stopped the fever medicine and gave her as follows: Codeine granules, gr. 1-6, twenty-four, emetine, gr. 1-6, granules number 6; put all into twenty-four teaspoonfuls of water and ordered a teaspoonful every two hours.

In addition I gave her triple arsenate granules, three after eating with ten drops of nuclein on the tongue at 9 a. m., 3 p. m. and 9 p. m. Up to the time this was written the patient is well on the road to health.

This is my mode of treating pneumonia with but little variation except in the various complications, which must be treated accordingly. The success obtained in treating pneumonia by this method is the greatest at the present time, and never fails if you begin treatment in the beginning of the attack.

W. F. RADUE.

Union Hill, N. J.

HEMOSTATICS: GOOD AND BAD

The Medical Brief for January has an excellent paper by Prof. W. E. Dixon, of Cambridge, England, on the "Treatment of Hemorrhage by the Use of Drugs." Tannin appears in the blood as sodium gallate, and this is a vasodilator and does not favor clotting. Adrenalin is destroyed in the stomach, without affecting blood pressure or vascular tension. Injected intravenously it raises pressure and accelerates the pulse. Even when injected subcutaneously it does not affect the systemic blood vessels. It can not reach the blood in such shape as to affect the pressure or check hemorrhage.

Adrenalin intravenously, ergot and digitalis are vasoconstrictors, the effect being greatest in the splanchnic area, less in the skeletal muscles, least in the lungs, liver and brain. In the latter, in fact, the vessels are dilated by the more energetic contraction elsewhere. The blood therefore collects in the lungs, and to a less extent in the liver and the brain. The powerful cardiac stimulation by adrenalin may prove useful in tiding over emergencies.

Ergot does not, like adrenalin, act on the peripheral nerve ends but on the nerve centers. The areas of greatest, less and least action correspond to those of adrenalin. It also acts directly on the cardiac muscle, increasing its vigor, without slowing it or affecting the vagus at all. This would be important to clinicians if the preparations were reliable. The effects of adrenalin are transitory, ceasing within a minute or two, while those of ergot endure for several hours. The increase of blood pressure is much greater than can be obtained from digitalis. It congests the coronary, cerebral and pulmonary vessels and increases bleeding from them.

Of the digitalis group squill is the most effective, next digitalis, and lastly strophanthus. Squill excites first the nerve ends and secondly the muscular fibers; so that vasoconstriction does not depend on the presence of vasomotor nerves. Nevertheless the same results follow, the splanchnic areas contracting and the pulmonary and cerebral dilating. In hemorrhages from these latter areas we must avoid any vasoconstriction, or cardiac stimulation, and the tendency to these is subdued by morphine. Calcium salts also increase the clotting

tendency, and are best given in easily dissociated forms, such as calcium chloride. A grain or two may be given subcutaneously to save time, and will lessen one-half the period required for clotting.

These observations explain the failure of other drugs, but the author does not consider the one only hemostatic that has proved successful in pulmonary forms, atropine.

SHOOTING WILD

In the *J. A. M. A.* for October 13, 1906, Barton H. Potts calls a halt on the careless use of suprarenal extracts. It is quite time somebody did so. Men who employ sharp-edged tools should learn to use them skilfully or hie them back to the infinitesimals. Real remedies of clean-cut and highly specialized application should only be employed by those who have a correspondingly distinct idea of their action and clinical use. A certain degree of intelligence and knowledge must attend the practical operation of any improvement. The man who wielded a sickle or a scythe will not necessarily be found an expert in running a harvesting machine. The Irish peasants who had been accustomed to a thatched roof knew exactly what to do in a storm, and when one came up they placed the harrow on the new slate roof—with results that we may anticipate but they could not. So the doctor who has been accustomed to mix up a lot of whatever came handy, in most any dose, can not handle his adrenalin in the like manner. Should we then discard the newer weapons and return to the mess of old? Just as much as we return to the scythe and the sickle.

No matter how loud is the wail of the conservative, no matter how warm is our attachment to the things with which we are familiar, the world persists in moving. We may disapprove of some of this eternal shifting but we can not stop it. There is no such thing as rest and finality short of death. Recognizing this, it is up to us to do each our share in keeping the movement in the more desirable channels, and seeing that we ourselves do not get caught in some side channel or eddy in which we are lost to the sweep of the main current.

THE NIHILISM OF THE THERAPEUTIC NIHILIST

To the graduate of a medical school in recent years, one should in reality conduct himself as it were in the presence of an inmate of one of our institutions for the mentally diseased—when dealing with subjects involving rational therapeutics.

True to the daily teachings of his preceptor he is taught to believe that there are four curable diseases or disease complexes, viz., syphilis, malaria, anemia and diphtheria. In this embryologic stage of his professional career is he to blame? I believe that without a doubt he is not; yet this does not alter the fact of his therapeutic imbecility.

When we make the final analysis of the case, if we have in our communities a host of therapeutic imbeciles, of what account and in what esteem should the medical profession be held? Has not the laity after all an excuse for seeking in Christian science, osteopathy, irregulars and charlatans, mental respite and at least a chance at the proverbial floating straw? Of what use in this instance is the medical profession to the community at large?

The small villages and the towns of from five to ten thousand inhabitants suffer lamentably from the lack of good wide-awake therapeutic optimists.

True to the pedagogical asininity of their preceptors they dally along with their Widal reactions in typhoid; or their regular microscopical surveillance of a case of chronic nephritis, and seem to be oblivious to the "Dante's inferno" into which they have precipitated their charge from a total disregard of the specific indications in the case, as our eclectic brothers are pleased to term them.

Don't omit your Widal reaction and surely do not neglect your uranalysis, both microscopical and chemical, but for the

sake of the patient who has placed his life in your hands, *do something*.

The successful practician of the day is the one who does something. He is not the Utopian dreamer, nor is he the laboratory pantheist—he is a stable, well-balanced, wide-awake physician, doing something for the alleviation of disease and *doing it now*. In our medical schools I have seen men holding the chair of practice, who—according to Grover Cleveland's laborious style of expression—should long since have been relegated to the realms of "innocuous desuetude."

They had even come to such a deplorable state, that with their pitiable attempts to talk learnedly in regard to ultra-scientific departures in treatment, they left their students without the bare rudiments of today's therapeusis. How can the oncoming thousands of young physicians learn to cure disease from reading their medical bible—their Osler? True, they may become good diagnosticians—and know something of dietetic, hygienic and hydro- or electrotherapeutics, but where do you find that aggressive combativeness towards disease, which all real physicians should assiduously nurture as an inherent and integral part of themselves?

Four-fifths of your patients have their cases diagnosed correctly. How many of these cases that have been diagnosed correctly do you prescribe for in an equally sensible and painstaking way?

Do you prescribe some proprietary iron mixture—following out your vague idea of what a tonic should be—or do you sometimes change the procedure and give somebody's "cod liver oil" with the label soaked off? Do you know what you are getting in these? Aren't the alkaloids or U. S. P. preparations good enough for you, Doctor, or are you going to be frank with yourself and say, "I have been too indolent to acquaint myself with the therapeutic properties, possible chemical combinations and possibilities for good to be found in official medicines and in the newer alkaloids?

I hear men boast of their therapeutic nihilism—and with a few misguided exceptions I find them the nonenities in the war for public good. Ask one of these boastful agnostics the active principle of a certain drug—ask him the common U. S. P. preparations, the dose, the physiological action, the alleged therapeutic properties, the toxic symptoms, the solvents, the synergists, the incompatibles. The chances are that he cannot make a grade of 60 per cent on such an examination concerning aconite, belladonna, veratrum or hyoscyamus, and certainly not on such drugs as hydrastis canadensis, gelsemium, bryonia or blue cohosh. How should such a one know the potency of a drug for either good or evil when he has never tried it, when he knows nothing of it, and is moreover seemingly undeniably proud of the consequent therapeutic vacuity?

A man who had spent three years in Philadelphia and had graduated in one of our Southern colleges, when examined before our local board gave a beautiful description of the pathological anatomy of pneumonia, and when asked the dose of bichloride of mercury, promptly answered, 60 grains! Of course this is an extreme case, but at any rate it shows the deplorable lack of training given in this department of medical science.

Not long ago I was called in consultation with a country practician near my home. Among other things I advised the giving of dram doses of Warburg's tincture. When we were leaving the farm house the doctor said to me: "Well, Doctor, I wish you would send me out four ounces of Norwood's tincture so that I may start it immediately. Now this doctor (?) would have obtained Norwood's tincture of veratrum viride and given it in dram doses, just because he thought I said so. Yet one more case to illustrate the lack of careful use in regard to medicaments.

A visiting physician happened to drop into a drugstore and said he wanted "that heart tonic put up by P. D. & Co." The druggist asked if he knew its composition —whereupon the physician told him that he did not know the formula, but always called for P. D. No. 136! The inference

is no doubt obvious to all, whether your creed be "phobo-therapy" or "philo-therapy."

For searchers after a sound therapeutic working basis I can give what I know to be a valuable advice. Read *conscientiously* and repeatedly the three following works: First, send to the editor of the *Journal of the A. M. A.* and secure all the copies containing the special article, "The Pharmacopeia and the Physician." Read it, digest it and apply it. Second, get Prof. Ellingwood's book on "Materia Medica and Therapeutics." You will find more real helpful working information there than you can imagine without seeing it. Read it; digest it and apply it. Third, write for Drs. Waugh's and Abbott's works on "Active Principle Medication." Read them; digest them and apply them. They will help you immeasurably.

J. Fred Bolton.

Eureka Springs, Ark.

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This article is crammed full of the best kind of "good horse sense"—but the heart and center of it is found in the emphasis which Dr. Bolton puts upon the necessity of the doctor's *knowing* more. The man whose mind is not receptive, who has a contempt for knowledge, unless it be "official," who is content to always follow and never earnest enough to seek for himself, is not a safe practician—not such a man as I want and you want when either of us may be sick. Seek after the truth! Let nothing good escape you, whatever its source. That's the spirit which should move in every one of us.—Ed.

THE PHYSICIAN'S DUTY TO TUBERCULAR PATIENTS

My association with the Sunlight Sanatorium for Tuberculosis has given me an excellent opportunity to observe the conditions under which many tubercular patients are practically driven from home to die among strangers in a strange land. This would not be so bad if the patient had sufficient means to surround himself with the modern methods of treating the disease.

In the first place he needs the most nutritious diet, pure air, day and night, and the maximum amount of sunshine. In the majority of cases what do we find? All through the first and the greater part of the secondary stages the patient has been led to believe that his trouble is only a slight bronchial one. His stomach is bad and the cough comes from that. The third stage develops and the disease stamps its imprint on every feature. Now there is a rush to see what can be done for the unfortunate. A change of climate is decided upon and a race with Death to Colorado has begun. His finances being limited, or his desire to get through as cheaply as possible, he spends his waning strength in hunting a place to stay. The best boarding houses, hotels or private houses will not take him. He either takes up with ordinary boarding-house fare, or rents a small room down town, through the dingy window of which the sunlight seldom falls. The near-by cheap restaurants furnish his meals, and here in the midst of stifling smoke, dust and confusion, he renews his fight with the grim monster. Is it difficult to predict the outcome?

Had there been a reasonable chance when he left home, what would it amount to under these conditions?

Suppose he goes on a ranch. The solitude and awful lonesomeness, not considering the fare of western ranch life, is all that a strong robust person can endure.

Again he is handicapped by his own ideas of treatment. He may insist upon walking, horseback riding, mountain climbing or working, when his temperature runs to 102° or 103° F. The same regarding his diet; just so far as it tickles his palate, no matter how indigestable or sloppy, down it goes. He is afraid of the "night air." He might take cold, so he takes poison by having the windows almost closed during the night.

This is no fancy or isolated case. Sad, indeed, that they may be numbered by

the hundreds. Out of nearly 700 deaths from tuberculosis in our city last year over 650 were from outside the states; sent here as a last resort, hoping against hope, which hope might have been realized had their coming not been so long delayed. Many have been brought on stretchers and under proper care and attention recovered. But to send a poor, third-stage consumptive away from home, with scarcely means to pay car fare, is inhuman. No less an injustice is done the patient to keep away from him the fact that he has incipient tuberculosis. Then is the time to act. Let him know the battle that is before him that he may be prepared for it.

Of the first and second stage patients so far treated here, every case has recovered. At this time the disease is curable, but it must be fought by every natural and artificial means at our command. There is no specific remedy. Climate alone comes the nearest but it is not sufficient. The life-giving zone of our rarified mountain air, its bright perennial sunshine, are great restoratives in themselves and when united with natural methods of living, wonderful results follow. They have done what the drug shops have hopelessly failed to do. Too much faith has been given drug medication and to this day many a consumptive goes down still grasping his bottle of cod-liver oil, creosote, or some other equal delusion. When the digestive organs are impaired by too much medication or indigestible food, the main bulwark against the advances of the disease is taken. Its progress then is sure and rapid. I have seen advanced cases brought to a favorable end and simply because the stomach was able to perfectly perform its function. Again we see the necessity of keeping strict watch over the habits of our patients.

What then is the physician's duty when confronted with a case of incipient or suspected tuberculosis? Be honest, first with himself, next to his patient. Tell him frankly his trouble and if not positive of the diagnosis, what the conditions indicate though not sufficiently developed to demonstrate the disease. He may leave you and seek some other less worthy counsellor, but later on you will not have the curse of a dying man to bear because you did not warn him in time. That will fall to the other fellow for the few paltry dollars he gained by hoisting the false signal: "There is no danger." It does not detract from the ability of the general practician in the earliest stages to say: "I cannot make out any diseased condition." Often the trained and experienced specialist fails. But there are certain forewarnings whose ominous signals should be carefully watched and acted upon. A little later a slight portion of the black cloud will appear upon the horizon. Then let there be no hesitation. A fair young life, a bright promising manhood rests in your hands. The storm can be averted, the life saved, but not without a fight in which the physician and patient alike realize the danger and work in perfect accord.

The treacherous, possum-like methods of the enemy must not be forgotten. Can he afford it, a change of scene and climate will be most desirable. The climate that offers the maximum amount of sunshine is to be preferred. If this cannot be done perhaps some near-by sanitarium for tuberculosis is within reach. If not, then at home, on sanitarium lines as much as possible, conduct the fight. Our dry crisp air is truly an elixir of health and strength, but especially in cases of tuberculosis it must be combined with rich, nutritious food, which in price at least corresponds with the altitude. He cannot live on air and sunshine.

If the third stage has well advanced, in the majority of cases it is useless to turn his staggering footsteps from home and kindred dear. He will only get a glimpse of the promised land, before the gates eternal swing open to receive another white-souled captive, long struggling to be free.

If the disease is in its incipient form, and it is necessary, the patient may find some light outdoor employment, to defray expenses. Under any condition, the more

quiet he can be and care-free the first few months, the better the outlook for his recovery. Six months' or a year's stay should be the shortest time for the lightest cases.

The physician who lives in that larger life that enables him to see his duty and do it untrammeled by selfish ends, will reap a golden harvest from hearts he has made glad by his wise council, watchful care and faithful devotion to the honor of his high calling.

M. W. Page.

Denver, Colo.

COUGHS AND COLDS

There is no disease better worth careful clincal study than a common cold, and the physician who comprehends the pathologic conditions it presents, and is capable of applying therapeutics scientifically, has acquired a large portion of the practice of medicine.

Every accessible spot on or in the human body is incessantly attacked by swarms of microorganisms, constantly recruited from the illimitable hosts outside, as well as those generated in the alimentary canal. Against these the defensive forces of the organism wage an unceasing defensive warfare. When anything occurs to weaken the defenses to a certain point the assailants are always at hand, ready to effect a lodgment. Local conditions may favor the invaders, as those described by Formad, who found in scrofulous subjects the perivascular lymph spaces of the lungs so occluded by debris as to prevent the free ingress of the phagocytes.

General conditions may operate disastrously against the defenders, as where they are drained away by losses of blood, or when diseases rapidly recurring have exhausted the supply. The most common general cause is, however, the reversal of the osmotic currents so that the excretory materials resulting from metabolism are turned back into the blood. This occasions a general empoisonment, whose manifestations are recognized at the points where the vital forces are at all times most defective. Here the lodgment is effected, and local disease is declared.

From these data the mechanism of an ordinary cold, a respiratory catarrh, may be calculated. A person whose resistance is about equal to the ordinary needs goes out into the cold and is chilled, the check of cutaneous excretion throws back into the circulation a quantity of toxic matter, which exerts its malefic influence on the weak spots in the respiratory tract, and the ever-ready bacteria set up a local inflammation there. This spreads at the edges and a large part or the whole of the tract may be affected. Or, some check of other eliminative discharges occurs, or there is a large addition to the stock of toxins in the alimentary canal; which explains the occurrence of colds immediately following Thanksgiving and Christmas dinners.

It is easy from this view of the pathology to see why various therapeutic procedures are effective. One man pins his faith to castor oil, which flushes out the bowel. Another takes large draughts of water in some form, which flushes the skin and kidneys and reduces the quantity of toxins circulating in the blood. Various elimination stimulants have acquired repute. Perhaps we may reason back from the popular favor shown by our forefathers to boneset, and find in it a valuable eliminant that may be applied in other cases. It is easy to say that it is simply the hot water taken with the tea, but this has never been proved, and is unlikely. It was not a matter of accident that all the world selected as beverages the plants that contain caffeine, and it is no less unlikely that the selection of boneset out of all the weeds had no reason behind it.

In treating colds, begin by emptying the bowels, with a grain of calomel in divided doses, followed by saline laxative, and add enough of the sulphocarbolates to disinfect the entire tract. A hypodermic of pilocarpine, gr. 1-6, to freely sweat, is quite effective at the start, especially if combined with the saline bowel-flush. Treat fever with the dosimetric

and defervescent triads (or sample aconitine), favoring the latter on account of the powerful eliminative action of the veratrine. Give just dose enough. A useful derivative is a hot mustard footbath. By these means, coupled with a few doses of calx iodata, many a forming catarrh may be broken up—the attack aborted.

Another way is to apply to the focus of the attack, as denoted by an itching spot on the mucous surface, a drop of any strong germicide, or smear the surrounding mucosa with mildly mentholated petrolatum, which offers quite a formidable obstacle to the spread of the disease. Beyond this the treatment is that of the symptoms, and this leads us up to the consideration of coughs.

Nothing can be worse than the usual polypharmacal treatment of coughs. In no department of practice are the indications clearer, better defined, easier to read or as well suited to the scientific application of single remedies. Rarely is more than one indicated at the same time.

The cough is irritative, coming from a hot, hyperemic mucous membrane. The indication is to stimulate secretion, and for this we may give emetine to a weakly patient or lobelin to a plethoric one; of either a small dose—gr. 1-12 in a little hot water every fifteen minutes till slight nausea tells us the full useful effect has been secured. Or if there is decided irritability of the stomach at the start we may substitute apomorphine, gr. 1-67 to 1-12, by the stomach, knowing that thus taken it does not cause nausea but greatly increases the m cous discharge.

Here is, probably, the only chance we have to get in more than one remedy, as, if the cough is excessive in proportion to the secretion it raises, we need a sedative to respiratory sensation. This we find in codeine, heroin or narceine, either of which lessens sensibility without interfering with digestion as morphine and crude opium do. It is best to give small and oft-repeated doses—gr. 1-67 to 1-33, every half hour till relieved. If there are grave objections to the use of opiates, we may substitute extract of cannabis indica; but a better agent is ours in solanine. This depresses respiratory irritability without any of the difficulties encountered in using opiates. Give gr. 1-12 to an adult every hour.

The cough may be attended with dyspnea also, and then we require the antispasmodics. Sometimes the mild "nervines" answer, such as caffeine and zinc valerianates, cypripedin, scutellarin or passiflora; but for more serious cases we employ hyoscyamine or atropine, the greatest of the group. It is good to consider what a large part is played by spasm in the pains and sufferings of humanity, and to recollect that as an antispasmodic atropine is far superior to morphine. Too many times the latter is employed when the former is indicated. Give gr. 1-500 every hour, in hot water, until the mouth commences to feel dry—this being the first indication of toxic effect and the time to stop or lessen the doses. While the nauseants are antispasmodic it is better to simplify matters by applying drugs for their direct effect, and not for a collateral one. If there is local hyperemia with the dyspnea, lobelin fills both needs admirably. Its best effects are shown when it is pushed to full nausea.

Instead of coughing too hard the patient may not cough hard enough. The sensibility of the mucosa is deficient and secretions collect, until the patient may even become cyanotic from interference with aëration. Here, and only here, is the place for squill (scillitin), senega and sanguinarine. The latter is best in most cases, and may be given in doses of gr. 1-67 every fifteen minutes till effect. Squill should be withdrawn from the list of expectorants (excepting as a stimulant), and placed among the vasoconstrictant heart tonics, where it is capable of giving good service. It is not needed here. Senega is a feeble little sister to sanguinarine and may be neglected.

There may be too free secretion. This indication is complex, for this may be due to a respiratory mycosis, to colliqua-

tive discharge, or to chronic catarrh with relaxation. In the first place we should quickly saturate the patient with calx sulphurata, giving gr. 1-6 every half hour till the sweat smells of the drug. Use also germicidal sprays or vapors, which may have some little salutary effect. Dilute campho-menthol solutions applied with an oil atomizer are excellent.

Colliquative discharges demand treatment of the primary malady, usually advanced pulmonary phthisis, and are benefited by calcium lactophosphate in doses of ten grains a day, divided. This must be given for weeks or months. For chronic relaxation we may restrain the discharge by the use of copaiba, the balsams, or perhaps best by berberine, up to five grains a day if necessary but usually gr. 1-6 every waking hour. Continue for six weeks if not sooner relieved.

The discharge may be fetid, showing decomposition or, possibly, pulmonary gangrene. Here we need the volatile oils, any of them, and tar or its derivatives creosote and phenol. These may be given internally and also employed in sprays or vapors.

In the cough of phthisis the cyanide of zinc has proved a useful sensation-sedative, and is the safest because the most permanent and unchangeable of the cyanide preparations. Give gr. 1-6 every hour as needed.

These comprise the principal indications met in the management of coughs; and their recognition enables one to adjust the treatment with an effectiveness that is never approached by the man who treats all coughs with a combination embracing perhaps all the antagonistic classes of remedies mentioned. A clear idea of the difficulty, and a similar clear idea of what remedy will relieve it, render practice easy and successful.

W. C. Abbott.

Chicago, Ill.

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We hope that many of the readers of Clinical Medicine will try the ideas suggested, work out the detail in their own experience and then report through the columns of this journal.—Ed.

CALX IODATA IN WHOOPING-COUGH

I though I would write to you some of my experiences with calx iodata. Some time ago my attention was drawn to calx iodata by a "drug man," so I ordered an ounce of tablets to try in a case of croup if I had a chance. While waiting for the croup to appear I had a case of whooping-cough.

No. 1. Boy about eight years old. Parents tried all kinds of remedies but with no results. I gave him calcidin and calcium sulphide and had him on the road to recovery in a few days.

No. 2. Girl, three weeks old. Gave calx iodata to saturation. This baby coughed continually. In twenty-four hours was easier and recovered in a few days.

No. 3. Boy, six weeks old, whooped every half hour during the night, but not so bad day times. Gave him sixteen tablets in sixteen teaspoonfuls of water, directions one-half teaspoonful every hour until relieved—then every two hours. The next night he coughed three times, continued to for a week and then was well.

No. 4. Boy, five years old. Whooping-cough. Would vomit every time he coughed and was weak from want of nourishment. I gave calcidin every two hours. Next day he was better but vomited some. In three days no vomiting, and gaining in strength. No more whooping-cough.

No. 5. My three boys, age eight months, three years, and five years. All came down with whooping-cough. I gave the baby calx iodata and in a week no more whooping at night. Slept well. The other boys calcium sulphide. The one aged three years would whoop twice at night after giving the treatment. The oldest one "whooped" twice and all told made a very quick recovery.

I treated over sixty cases of whooping-cough last winter (1905-6) from three years of age to 40, and with children who couldn't swallow a pill I gave the calx iodata in solution of water, and gave it to satura-

tion and gave it quickly, and with as good results as if I had given calcium sulphide, as I did with the older ones. Didn't have a case that didn't get well with this treatment. Also used calcidin in Pott's disease with good results, also in enlarged tonsils, glandular enlargements, disease of middle-ear, etc. I have read CLINICAL MEDICINE for several years and note that calcium sulphide is the treatment for whooping-cough, but no mention of calcidin. I know of several doctors in this neighborhood who used it and with the same results. Would like to hear from you as to whether this is new or not.

P. E. HANES.

Maynard, Ia.

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Good! It is just such notes as these that we need. Truly, the field of usefulness of calx iodata is not yet half mapped out.—ED.

A LOAD OF GOOD THINGS

The September and October numbers of CLINICAL MEDICINE contained such a load of good things that I cannot refrain from expressing my approbation I almost wished that it came only once in two months so that I could have more time to absorb its contents. I cannot agree with one writer who tells of the treachery of chloroform as an anesthetic. I have used it exclusively in a reasonably large practice for twenty-six years without a single fatality, often in surgical cases where a lumber Jack was the only assistant that I had to look after the anesthetic. What more could one ask?

I have had some experience with hyoscine hydrobromide during the past summer and consider it a wonderful remedy, fully bearing out all that Dr. Abbott claims for it. I used it in a case of morphine addiction where morphia had lost all power to produce sleep or relieve pain and the effect combined with morphine was almost marvelous in relieving all unpleasant symptoms, as inducing perfectly normal sleep. I believe that it has a wide field of usefulness.

I have owned Ellingwood's Materia Medica for two years and find it an invaluable help and optimistic to please even such an anti-nihilist as Dr. Abbott.

J. H. BENNETT.

Boyne, Mich.

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Thanks, Brother, we are trying to keep CLINICAL MEDICINE up to the mark and we are glad to know that you think we are succeeding. But don't fail to read the journal *every* month. You can't afford to lose a single one of its many good things.

Your experience with chloroform and with the new anesthetic are enlightening. Give us more such experiences.—ED.

ERYSIPELAS TREATED WITH PILOCARPINE

I wish to report a case of erysipelas treated exclusively with pilocarpine. I was called November 23, to see Mrs. M., age 60 years. She was taken a few days before with a burning and swelling on the nose which continued to spread until my visit on the 23rd, at which time the swelling had extended to about the middle of the forehead and the upper lip was considerably swollen. I prescribed ichthyol and glycerin, equal parts, applied locally; 20 drops fluid extract echinacea given every three hours, with aconitine, gr. 1-134, as temperature was 103° F.

November 24, the temperature was 101° F., swelling covering a much larger area than the previous visit—patient very nervous, had not slept any the night before nor taken any nourishment. I discontinued former treatment and prescribed gr. 1-4 pilocarpine every three hours. I saw the patient at 6 p. m. on the same day. The pain was entirely gone and I thought the swelling was not quite so bad. The patient was bathed in perspiration. I had her clothing changed and had some gruel given her, which some of the neighbor women had prepared. Gave gr. 1-6 pilocarpine every three hours.

November 25, at 8 a. m., the temperature was normal. Swelling very much re-

duced. She rested well the night before. I continued the pilocarpine, gr. 1-8 every three hours. November 27. Swelling all gone; patient comfortable; appetite good. Kept up pilocarpine gr. 1-8 every six hours until November 28, my last visit. No return of disease. Patient well and able to do her housework.

I report this case, not that the treatment is new to the readers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE; but it is the first time I have ever had the nerve to try the exclusive pilocarpine treatment. I treated a case of traumatic tetanus two years ago exclusively with pilocarpine and morphine and the recovery was rapid and permanent.

A. W. BARTON.

Overton, Tex.

NEW DISEASES, OR OLD ABORTED?

It is a question with me whether I am worthy of a niche in the "Temple of Fame" as the discoverer of new diseases, or whether I should be relegated to the realms of oblivion as a know-nothing, or if I am simply on the right track in common-sense treatment of the diseases known as typhoid fever and pneumonia. I submit the question to the "family."

Case 1. Lady, age 35 years, four children, general malaise for two weeks during which time was not seen by any physician; I was sent for November 7, seventeen miles away from office, to see above; found her suffering from intense headache, part of the time delirious, fetid diarrhea, tympanites, temperature 104° F., enlarged area of dulness over region of liver and spleen, extremely restless, trying to get out of bed.

Treatment consists of mild chloride of mercury, gr. 1-2 every hour to effect, followed by saline laxative and the latter to be given every twelve hours if necessary, sulphocarbolates and defervescent every two hours, hyoscine for delirium, acetonized water alternated with plain boiled water, instructions given as to diet and hyoscine.

The temperature ran a typical course of evening rise till November 14, when it suddenly fell to 96 1-2° F., gradually regaining normal in the course of a few hours, and has remained so until now, for ten days. Patient was put on strychnine arsenate and a smaller dose of sulphocarbolates and is now up, but of course weak.

No Widal test was made, as symptoms seemed to point to a case of typhoid fever and my diagnosis was made more emphatic at each visit.

Of course we may call this a case of autointoxication, and the result would seem to prove that such ought to have been the diagnosis, but one fact seems to dispose of this and that is that that is the eighth case of this kind that has occurred in the immediate neighborhood during the last few weeks, and that in three towns around us there is a great deal of typhoid fever prevalent; seven of the above cases ran a similar course while one, to which I was not called till the fourteenth day of the disease, is still, after two weeks' treatment, showing slight rise of temperature in the evening, 99 1-2° F., and although slowly convalescing, shows that there has been something more than autointoxication.

Kindly name the trouble if possible from such a short resume of one case and let me know if I am to be hailed as "a great discoverer," or just to be told to make better diagnoses, or get some help to make them from the followers of the old methods, while, Micawber like, "waiting for something to turn up" in these cases, even if it is the patient's toes, and clinching the evidence by the severity of the disease. In the meantime I am just going to continue in the same way as heretofore.

Case 2. Boy, at ten, son of the patient of Case 1; got wet through going to school, next day had a chill and then temperature ran to 104° F.; delirium all night, saw him for first time next morning when temperature was 103 1-2° F., incessant cough, expectorating slightly tinged mucus

and very little of it; cough was of the so-called dry variety; excrutiating pain in left side about the fourth to seventh ribs, dulness in percussion over above area, increased respiratory sound; respiration was 35.

Treatment consisted of warm antiphilogistine over whole of left side of chest, sodium salicylate with tartar emetic and defervescent compound, mild chloride, gr. 1-2 every hour to effect, followed by saline laxative. This was on the 20th. Temperature ranged irregular, from 100° to 103° F. till the night of the 23rd, then dropped to normal and remained so. Patient put on strychnine arsenate and sulphocarbolates as there was considerable fetor from evacuations.

I am afraid I must put this down as a bad cold in order to keep in touch with the followers of the old methods. Maybe I should have waited to have seen what would have happened if the former treatments of pneumonia had been followed and then written you a treatise on the fatality of pneumonia as a disease. Or shall I put it down as a new disease discovered and combated by your methods? Or is it possible that it had some of the symptoms of a disease we call pneumonia? Impossible, say those of the old school. Then let them name it and call me a know-nothing but a lucky one, as this is not a solitary case which has had the same termination.

As far as I am able to prove, after twenty-five years of active practice, seventeen years in the same locality, these cases showed some or all of the symptoms of good old-fashioned pneumonia.

Now as regards treatment I do not want any remarks made, as it is not all given in its smaller, but no less important details. The main principles only are noted above, and criticisms will be fruitless as I believe, considering results, that the patients are satisfied and I know I am.

Let me just make one remark about a routine treatment of mine in all these cases, call them bellyache or bad cold, typhoid or pneumonia or what you will. When I am called to any one at a distance I invariably leave a temperature chart on which I fix a place to write down the times the bowels act as well as the temperature, and I make it a rule to tell the attendant that the bowels should never go twelve hours without acting and instruct that saline laxative or castor oil, good old drug, should be given to effect if no action occurs then; this I have brought to the nearest telephone and read over. One can treat almost entirely at a distance, provided all necessary instructions about other details have been given.

I guess you have so many similar reports that you get tired of them, but to tell you the truth, I have been so full of elation over the results of so many cases treated by your methods during the last seven years that I had to give play to my enthusiasm or "bust," so I just "give play" and this is the result.

Geo. Harwood.

Johnson City, Tex.

THE MOST HELPFUL JOURNAL

It is a little ahead of time I think but I wish to renew before you raise the price of your excellent monthly, the most helpful medical publication that comes to my desk. I think you are perfectly justified in raising your price and think you would have just as many subscribers at $2.00 as at $1.50.

I admire you for your optimistic fight in behalf of medical therapeutics and for your unswerving advocacy of accurate dosage of active principles of drugs based on accurate diagnosis and clinical experience.

I wouldn't know how to get along without aconitine, calcidin and calcium sulphide. Your pupil in the alkaloids,

Howard D. Eaton.

Chihuahua, Mex.

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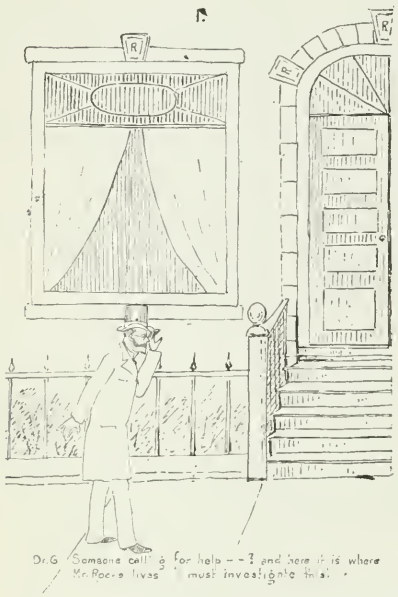
So say they all! We have received dozens and dozens of letters from readers of Clinical Medicine—all carrying the same spirit of gratitude and encourage-

ment. They cheer us mightily. Everyone seems satisfied with the new price.—Ed.



DR. E. T. THERE STILL AT WORK

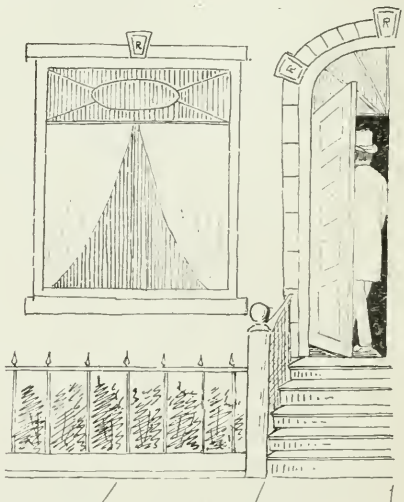
A remarkably astute practician is at work—as is to be seen by the accompanying illustrations. Of course it was natural that such a live and up-to-date member of our craft should bring the new anesthetic into play in such a propitious opportunity as this. The good doctor certainly lets no chance for his own advancement escape him.

We are promised a series of drawings, one every month, by Dr. Torgny Anderson, the author of these sketches.

ANOTHER USE FOR HYOSCINE-MORPHINE

An article appearing in Clinical Medicine a short time ago, to the effect that gas could be detected in the blood for six weeks after poisoning from the same, was recalled to my mind by the following interesting case.

Mrs. A. H., aged seventy-nine years, was accidentally asphyxiated with illuminating gas Sunday afternoon, November 25, 1906. After having been unconscious for two hours she made, in two days, apparently a complete recovery. The next Wednesday she took a severe bilious fever but with thorough "clean out and clean up" was again hustling and clamoring for food by the fourth day. On the fifth day she was taken, at 3 p. m., with a very severe pain in the left leg, from the knee down—an aching, boring, burning pain, terrible to witness, patient being entirely uncontrollable, requiring the free use of narcotics for relief. After giving a grain of morphine and 4-150 of atropine hypodermically, within three hours, also compound spirit of ether without any relief, I gave her half a tablet hyoscine, morphine and cactin hypodermically with the result that the patient entered into a quiet sleep fifteen minutes later and slept for five hours. This dose had to be repeated every five hours until death took place four days later, the gangrene of leg which appeared within twelve hours after the onset

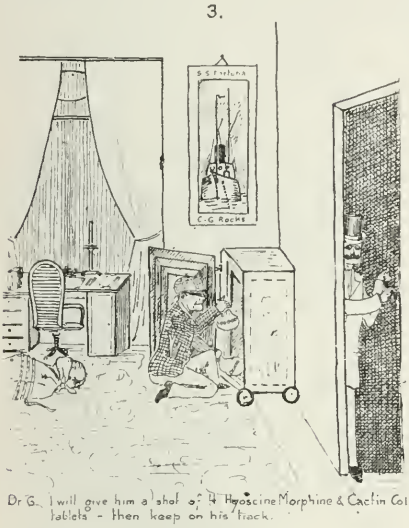


of pain continuing until death; it had spread the entire length of the thigh.

During ten years of practice I have never seen such a quick and prolonged relief of severe pain from the use of any drugs. Approximately this aged lady was under

the effect of these drugs for four days without the least depression of heart action or breathing. In fact the pulse would

3.



drop from 150 during the agony to 120 per minute when free from pain. The patient could be aroused any time but slept peacefully unless aroused. My diagnosis, embolism followed by gangrene. In the words of the relatives: "We don't know what we would have done had it not been for this new anesthetic." Let us hear reports from everybody on the use of this combination and establish the "freedom from danger" in their use.

F. Otis Bryant.

Chester, Pa.

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This strongly brings out the value of this anesthetic combination in a new field —the relief of pain in those cases of terrible suffering in which morphine alone is often ineffective, and in many of which the inevitable end is death, as in this case of gangrene and in far-advanced and inoperable carcinoma. Since Dr. Abbott first advanced the anesthetic value of this combination in his paper in the *International Journal of Surgery*, for February, 1906, its field of usefulness has constantly been broadening. These reports are extremely useful and we should have more of them. We are anxious to map out definitely its exact indications and limitations.—Ed.

HYPODERMIC ANESTHESIA

I am one of your newest subscribers, and I desire to give you my testimony and thanks for your medicine and literature. Some time ago you sent me samples of the new anesthetic, I mean the hyoscine-morphine-cactin combination. I have used them and to say that I am pleased would be expressing it very mildly. I desire to give my testimony to the following good points about this combination:

First of all it removes the nervous dread that is so common, preceding an operation. In the second place the amount of anesthetic required (chloroform) was cut at least in half. Third, not one case in five has any post-operation pains, which you know is one of the things most dreaded by patients who have been operated upon be-

4.

fore. And last of all and most important is that nausea and vomiting are almost entirely done away with. I am feeling my way along with the active principles, such as aconitine and digitalin, and I am convinced that the practice of medicine will

be much more satisfactory for me in the future than it has been in the past.

W. O. Henry.

Omaha, Neb.

Yesterday I was fortunate enough to witness two thigh amputations performed at the King's Daughters Hospital, Portsmouth, Va., and for which they used the hyoscine-morphine-cactin anesthesia. I was so pleased with the results that I am desirous of trying it and I will thank you if you will send me the literature on the subject and enough tablets for a couple of trial cases.

C. M. Oman,
Past Assistant Surgeon, U. S. Navy.
Norfolk, Virginia.

I gave the hyoscine, morphine and cactin compound a trial today in a case of locomotor ataxia of three years' standing, in which three grains of morphine (hypodermically) had no effect. This patient had been using morphine for more than nine years; had not had any morphine for eighteen hours previous to the hypodermic injection of the hyoscine, morphine and cactin compound, and thirty minutes after injection there was complete surgical anesthesia.

F. V. Dotterweich.

Ashland, Ohio.

Since using the hyoscine-morphine and cactin tablets in a number of different cases I would not be without them. They are valuable in obstetrical as well as surgical work, and in many other cases where morphine or hyoscine is needed. The hyoscine prolongs the rest so well in pain cases that a second dose of morphine is not needed nearly as often.

J. W. Robinson.

McCammon, Idaho.

I have had good results with the alkaloids. Yesterday I had an opportunity to test your method of hypodermic anesthesia. A woman had the end of her finger torn from the second joint, badly lacerating the muscle above, which required my taking off a piece of the bone. I injected one tablet and in due time, with but four or five drops of chloroform, she was asleep and

5.
The thief. I feel so dizzy, just like I was drunk. I'm so sleepy. I guess I'll sit down a little. — — oh! —ah! (stumbles)
Dr. G. We have got him now!

the necessary operation was performed without the slightest pain.

M. H. Westbrook.

Olmsted Falls, O.

On November 8, 1906, I gave your hyoscine, morphine and cactin compound a fair trial as follows:

An Indian woman of the Timphnute tribe at Caliente, Nevada, was badly cut about the head and face, as follows: Her upper lip was cut from the antrum of Highmore to the mouth in two parallel cuts resembling a double cleft lip.

I gave the tablet as directed in your letter. The patient slept quietly during the operation of suturing, and at the end of one hour after the operation she awoke and went about her business with no apparent ill-effects from the anesthetic and no pain. I shall use it in my surgical practice hereafter and will let you know the outcome. I shall also try it in obstetrical work. It looks to me as though you

have made a great stride forward in surgical and obstetrical anesthesia.

W. P. Murray.

Caliente, Nev.

—:o:—

The above field notes will surely be of interest, for they come straight from the

G.
Dr G. Sound asleep! Wonder if I ought not to trephine his bump of acquisitiveness?
Mr Rocks There is my money. Thanks to you Doctor I've lost nothing.

firing-line. A great many reports have been received and not one of failure or disapproval. Ask for samples and report results.—Ed.

FROM AN OLD FRIEND

You really must "discontinue" to save me! I have retired, or rather, quit the practice of medicine and I cannot be goaded up by the reports of the boys on the firing line, while I am unable to get into the fray. Matters of medicine still possess the greatest interest for me, so I shall likely have to subscribe for some staid and prosy journal of so-called "scientific medicine," one of the kind that puts a fellow to sleep and makes him glad that he is not practising an art that is such a failure. But if I keep on reading Clinical Medicine it will be but a question of time until I shall be back in the practice, and that is what I wish to avoid.

Such reports as your journal gives us, and then the fact that we can verify them in our work, makes medicine again an alluring profession. And I wish to take this opportunity to thank "the Abbott people" for all they have done for me in the way of furnishing me good ammunition and helping me learn how to use it.

I do not know a single practising physician out here who does not take the Journal or I would have it sent him at my expense. No doubt I'll miss the thing so much I will be sending in again before long—in which case the dollar and a half will be well spent. The Journal is well worth that. With apologies for using so much time for good bye, I am,

Gratefully yours,

G. R. Hickok.

Ulysses, Kans.

—:o:—

When they leave us at the end of the professional work we shouldn't have a word to say; but, really, Brother, how are you going to know that "the spirit" is not dead unless you have Clinical Medicine to test it by.—Ed.

THE NEWEST "OXYTOCIC." A CURE FOR RETROVERSION

A few words about my "new oxytocic." I have been here in Turkey, now thirty-two years, yet I had never heard of this remedy until about three months ago. The case that brought it to light was a primipara—had been in labor between three and four days, pains were light, bearing-down feeble. So in order to produce greater force on the exhausted uterus the ends of the patient's hair were stuffed down her throat to produce gagging and retching, so that the poor fourteen-year-old child could in that way assist tired nature in casting off what had become a foreign substance. Have you heard of it before?

During the last two weeks I have also learned of a new kind of pessary, and also a new place to use it. Last week a patient came for examination. She was about

twenty years old and had been married eight years. No children, and the reason for her not having any, as diagnosed by the old women, was retroversion of the womb. The treatment of this difficulty was, as prescribed by the old women, a stone placed high up in the rectum in contact with the displaced organ which would in time bring it back into place (?).

So the poor woman, in order to overcome the disgrace of being childless, placed the stone as ordered and carried it there until the irritation produced a painful and distressing tenesmus followed by extensive swelling in the groins which was in a measure relieved after a time by a discharge of foul and fetid matter from the rectum as the stone had produced an erosion. It was for this last they came to me for treatment. What do you think of it?

D. M. B. THOM.

Mardin, Turkey in Asia.

—:o:—

Our first thought was to say: "What heathenish ignorance those missionary doctors do have to contend with"—then we thought of some of the abominably disgusting things the American doctor runs up against in this home of the free and supposedly enlightened American citizen. For instance, that case of "fluorendofendndung" last month. Or that German doctor, who found a patient who had been wearing a croquet ball as a pessary! Surely, human flesh is long suffering and very patient with folly.—ED.

SPARE THE TONSILS

In the *Journal of the Minnesota State Medical Association* for December 15, W. N. Porteous contributes a timely protest against the extirpation of the tonsils. He combats the idea that total extirpation is the one only thought which can be thought in regard to the treatment of this portion of our anatomy, and that discussion is therefore to be limited to the best method of removal. Not content with calling in question the established doctrine, he goes on to offer some arguments in favor of his position.

The word "tonsil" he derives from the Latin "tonsilia," a mooring pole. He cites a case in which a fellow specialist insisted upon the removal of his own tonsils. The healing process was hardly completed when the patient became alarmed over the increasing huskiness and decreasing resonance of his voice. Inspection showed a profuse secretion dripping into the larynx, the anterior and posterior pillars joined by cicatricial tissue, the velum drawn to one side and deglutition impaired. In another case where both tonsils had been removed a similar condition ensued, resulting in the destruction of the patient's ability to sing, the lady having been a singer of some local repute.

Of other and secretory functions of the tonsil we know little or nothing. In view of recent investigations it is surely taking too much for granted to assume that it has none. This is the first protest we have seen recently against the condemnation of the tonsil to capital punishment, and if cases such as are quoted by Dr. Porteous are at all common, we may well pause before proceeding to extirpate the tonsil as a matter of course.

LIVE LONG AND BE HAPPY

The pages of history do not show us the names of rich men who have lived long or happy lives. Russell Sage is often cited as an exception to this rule, but a careful analysis of the facts show that Mr. Sage lived like a poor man instead of indulging in the luxuries which carry the rich into untimely graves.

The ability to secure easily the sensuous pleasures of this fitful life, the gratification of pampered tastes, the excesses of the body to meet social requirements, and the subjugation of physical requirements by business needs supposed to be of greater importance, are the rocks on which nearly all the lives of rich men are wrecked.

The man who eats to live will live longer than the man who lives to eat. Appetities were given us in order that we forget not the bodily needs upon which life and the

race depend. When satisfaction of appetite becomes the goal of all earthly effort, degeneration begins to shorten the days of life and curtail the numerical progress of the human race. An excess of wealth beyond reasonable needs tends to cultivate those conditions which serve to bring about these undesirable results. The good Book has among its wise precept the virile statement: "Man shall earn his bread by the sweat of his brow." Under these conditions man's food will be conducive to long life and bodily health. The man who will reverse the ordinary bill of fare, eating the "taste-goods" first and winding up with plain food which will not tempt his appetite beyond its real needs, will find no occasion for remedies supposed to cure dyspepsia.

Happiness is but another term for "feel-good." When we feel good in body and mind we are happy. An old shoe and an easy conscience are two very important factors in happiness, but there must be a fair degree of health and a reasonable amount of wealth to complete the essentials of true happiness.

The country doctor with a moderate income and an active life largely out of doors, with a congenial home and honest intent in all that he does, stands among the best chances of living a long and a happy life. He may have heartaches over the many unkind words which quite often take the place of gratitude; he may lose one-fourth of all the money he has earned by going to the calls of dead-beats; he may be elbowed unethically by his brother physician with a preponderance of selfishness; he may be traduced by malice, slandered to offset an unpaid bill and even be threatened by a suit for malpractice, but with the essentials above mentioned he should be truly happy and should live to be almost a hundred years of age before the "Reaper whose name is Death, with his sickle keen, shall reap the golden grain with a breath."

A. D. HARD.

Marshall, Minn.

—:o:—

Who would not be a country doctor. His life is a strenuous one; but it has many compensations, which do not fall to the lot of his city confrère. Long liv the country doctor.—ED.

THE MILITARY SURGEON

Doctor, if you ever did military service in the army or navy, or any other medical military service, state or national, you should become a subscriber to *The Military Surgeon*, published at Carlisle, Pa. Major James Evelyn Pilcher is the editor of this bright publication, which every month is full of good things, of interest to every medical man. This journal has had a very successful career, which the change of the name from "*The Journal of the Association of Military Surgeons*" to simply "*The Military Surgeon*" serves to bring out just at present in strong relief. Subscribe for it by all means.

FIRST AID ON THE BATTLEFIELD

In a reprint from the *Military Surgeon*, Col. Nicholas Senn contributes a paper on the above topic. His emphasized points are as follows:

1. As the fate of the wounded depends so much on the time and thoroughness with which first aid is rendered, the military surgeons must make ample provisions in time of peace to secure effectiveness of this service in war.

2. The first-aid dressing should combine simplicity with safety against post-injury infection.

3. The first aid must have in view the treatment of shock, hemorrhage, dressing of the wound, and immobilization of the injured part.

4. Probing of recent gunshot wounds must be prohibited by the most stringent regulation.

5. Under no circumstances should attempts be made to remove bullets until this can be done under strict aseptic precautions in the hospital, and then only in such cases in which such operation is clearly indicated, and the exact location of the bullet has been determined by palpation

through the intact skin, or by the use of the x-ray.

6. The most important duties of the surgeon at the first dressing station:—a. Inspection of first aid dressing. b. Permanent fixation. c. Emergency operations.

7. Instrumentarium of the surgeon in the field. The surgeon's field-case should be light, compact, and the instruments wrapped in a canvas roll, so that instruments and envelope can be quickly sterilized by boiling in soda solution.

CHRISTIAN SCIENCE

In your issue of December you published a statement to the effect that "in the summer of 1902 there died in the city of Boston, after seven years of illness, Mrs. Mary Ann Baker, the widow of Mrs. Eddy's deceased brother." It is further stated that at Mrs. Eddy's request Mrs. Baker had submitted to Christian science treatment, but that Mrs. Baker derived no benefit from it.

Mrs. Baker was treated by a student of Mrs. Eddy about seven years before her death, but not for the trouble from which she died. While Mrs. Baker loved Mrs. Eddy and accepted financial support from her, she was not a Christian scientist, and Mrs. Eddy never intruded Christian science upon her. She was permitted to choose her own religion and medicine. It is a rule in Christian science not to treat an individual without his knowledge and consent, except when the patient is unconscious or mentally incompetent, and treatment is requested by his guardians; and such practice, it will be observed, is in accordance with the golden rule. It sometimes requires more grace to attend to one's own affairs and refrain from meddling than it does to be an indiscriminate meddler.

In the Scriptures we read that Paul left Trophimus at Miletum sick, and yet Paul is said to have raised the dead. It is very likely that Trophimus was inattentive to his duties, and therefore fell into trouble. We may bear one another's burdens under the proper circumstances, but we are not expected to force our methods upon others.

ALFRED FARLOW.

Boston, Mass.

—:o:—

Fair play and a fair hearing! That is our excuse for admitting to our columns the preceding letter of Mr. Farlow, which comes from the "Office of the Publication Committee of The First Church of Christ Scientist," Boston, and may therefore be assumed to have the stamp of authority. Really, "Christian science" is a little out of our field though recent and forthcoming newspaper and magazine articles give it peculiar present-day interest.—ED.

COMPLICATED CASE OF TYPHOID FEVER AND AUTOPSY

Samuel E. Earp, in the *Central States Medical Monitor*, for October 15, reports a case of typhoid fever in which he made a diagnosis of typhoid fever although the Widal test was negative. The autopsy, however, confirmed the diagnosis. The case was one in which there was a frequent and irregular pulse of 115, temperature ranging from 102 to 104.3° F. during the course of the disease. Otitis media, pleuropneumonia and albuminuria were complications. The laboratorial examination was as follows: Urine, acid, specific gravity 1015, albumin present, no sugar. Granular casts and epithelial cells. Widal test negative. Leucocytes 6,000, hemoglobin 20 per cent. The patient died on the twenty-first day.

The treatment consisted of Dorsey's magnesia mixture for the bowels. Whisky, strychnine and digitalin were given, and the temperature responded to hydrotherapeutic measures. For rectal feeding the following was used: Predigested milk one ounce, whisky one-half ounce and one egg, and at times predigested beef. At other times medication consisted of intestinal antiseptics, Magendie's solution, bromide of potassium and salicylate of sodium, at times, when these remedies were appropriate.

The autopsy showed fluid in the pleural cavity, and red hepatization of the right lung. There was ulceration of Peyer's glands, enlarged spleen, broken-down kidneys and evidence of pericarditis.

WHERE TREATMENT FAILED

Several times I have reported successful cases for CLINICAL MEDICINE, but now the reverse. Last Saturday I was called by telegram to attend my grandson, aged six months, critically ill with cholera infantum. He had been given small doses of calomel. Was fed malted milk.

I at once discontinued all food and gave aconitine, copper arsenite, strychnine, zinc sulphocarbolate in boiled water frequently until odor vanished. The attending doctor who called at 6 next day, twenty-five hours after his previous visit, said he was glad I came and thought the baby better.

The stools lost their watery character and changed color. Monday forenoon the infant vomited bile and was sinking in collapse. I gave a hypodermic of atropine and glonoin, promptly reviving patient. A small dose of saline with a heart tonic caused rapid improvement. By night there were copious fecal discharge. The malted milk was given in teaspoonful-doses every four hours with peptenzyme.

Tuesday, so great was improvement, condensed milk was given, as there was no breast food. The patient seemed to be improving rapidly; rested well all night until 4 a. m. At 5 a. m. Wednesday there were a few convulsive movements and a profuse sweat occurred. Nourishment well taken and child rested, the eyes opened wide, pupils fully dilated. At 6 a. m. and without a struggle or movement it stopped breathing. No medicines were used in the last twenty-four hours except the peptenzyme with the milk and small doses of sulphocarbolate of zinc in boiled water.

This is the first child lost in this way in thirty-eight years of practice and under the best conditions. I have cured my patients under the worst hygienic conditions without any loss. Now, I ask what was done or left undone to cause death in this way? My only explanation would be lack of vitality in the infant. The infant had constant attention, as I had nothing else to do, being almost 400 miles from home.

G. R.

——, Virginia.

—:o:—

We beg to offer our sincere sympathy. It is too much to hope that we may be always able to avert Death, but it does seem that here the defeat was unmerited. Our one criticism would be that the entire stoppage of *all food* except barley water, beef juice and albumen water would have been better. You do not mention either, the use of the high antiseptic enema which is so important in these cases. Hyoscyamine is also always desirable, especially when the brain symptoms are becoming apparent. Pure water, beef juice, cool antiseptic enemata, free sponging of the body and (after divided doses of calomel) hyoscyamine, cactin and brucine, as indicated, with the sulphocarbolates and saline solution will usually enable us to pull the little ones through. Constant watchfulness however is necessary, as here vitality soon diminishes and Death claims the patient. We publish the case (and this comment) with the hope that your sad experience may cause some other doctor to prepare himself to meet any emergency.—ED.

ASTHMA. RIGID OS

To the non-thinking brethren who prescribe or recommend nostrums advertised in the newspapers and some medical journals. Might these nostrums contain wood alcohol? Remedy:—Don't do it.—Stop.—But use *alkaloids*.

In some of your asthmatic cases use 1-10 grain apomorphine. Select the case. Sometimes glonoin will do the same; dose, gr. 1-250 every ten minutes for two or four doses.

Mrs. C. R. Primipara. Age twenty-four. Labor pains began at 6:30. Was called at 7 p. m. On arrival water had broken. Examination. Os dilated but rigid

and bowels—"whew!" Patient bloated. Urine turbid and high colored. Flatus and stool most foul smelling. I unloaded the bowels the best I could, pains being very severe and no progress with os dilatation. I gave caulophyllin, one granule dissolved in hot water every ten minutes. After four doses and just as I had decided to use hyoscine hydrobromide hypodermically os relaxed and down came baby, feces and all.

Deduction: Caulophyllin seemed to me acted specifically on the rigid os through this terrible condition of autotoxemia.

F. V. Dotterweich.

Ashland, O.

IS THIS AN ABORTIVE TYPHOID?

It is only a short time that I have been using alkaloidal remedies. However the results have been so gratifying that I feel it my duty to inform you of the good results obtained.

I shall only cite one of the many cases in which the alkaloidal remedies have been of great service. I was called to see a young man, aged fifteen, who had been complaining for a few days of general malaise, loose bowels, had nosebleed and high fever. On examination I found pulse 120, temperature 103° F., gurgling in the right iliac fossa and a typical typhoid tongue. Naturally my diagnosis was typhoid fever.

I informed the parents of the danger of his illness and commenced treatment, which was as follows: I gave calomel, gr. 1 1-2, in divided doses, followed by a saline and aconitine and digitalin, two granules each every hour alternately, and one five-grain tablet sulphocarbolates every three hours. At the same time ordered to sponge the patient whenever fever reached 102°F.

Inside of forty-eight hours the temperature came down to normal. I kept him on liquid diet during this time and only gave him the sulphocarbolates for the rest of his ailment. The temperature remained low for forty-eight hours and I increased the food, giving him also the triple arsenates with nuclein. The result is, my patient was sitting up on the ninth day, feeling perfectly well and gaining strength.

The foregoing shows that by giving the proper treatment at the proper time typhoid fever can be aborted. It also shows that many other diseases could be aborted if proper treatment was employed immediately, and in my judgment the alkaloids are the remedies of reliance. I think there is no better intestinal antiseptic than the sulphocarbolates and commend them to all brother practicians.

D. E. I. Ricardo.

Chicago, Ill.

—:o:—

It makes little difference by what name we call a condition like this—the doctor's treatment effected a speedy cure. In the practice of men who adhere to do-nothingism such cases undoubtedly often do develop into full-fledged and full-term typhoids. We prefer to cure our patients early and let the diagnoses still remain in doubt. And our patients like this plan better.—Ed.

THE DOCTOR'S "AUTO"

In your December journal you call for an an article on "The Auto in Medicine." I have heretofore contributed a few items in this direction for some of the journals, since my experience dates from the first invasion of the steam auto in business in America and I have constantly used one ever since. I at first retained my horse and buggy for as much as two years, but in all that time only hitched it up twice, and though I hated to see them go they were useless to me.

I think now here in Los Angelos and in Southern California at least one-third of the physicians use autos. They are less expensive, save much time, are much pleasanter riding, never get sick and are not so liable to accident.

As to the kind there are very many good kinds. Some will prefer one make and others another. This much I will say, having used many makes of different pattern, for the ordinary doctor who uses and cares for his own car, which is very easily done, get a one-cylinder car. They are more

reliable, less trouble and will carry you anywhere any car can. I have tried two, three (the compound) and four cylinders and they are all more trouble, cost more for gasoline and oil and cannot and will not do anything your one cylinder cannot do.

The one cylinder Cadillac and the runabout Reo are, I think, sufficient for any man. No car made will do any more or go anywhere they cannot go. Of course if you want to carry four or five and want a touring car and a driver, that is another proposition. I can do as much and vastly easier with my little Reo runabout than you can with four horses, and have more time in my office.

As to the cold countries, I practically know nothing but imagine it must be rather annoying to fill up and drain out each day,—but then no more than the necessary work you find in caring for a horse and the oiling of your buggy.

I was the first physician in Los Angeles to drive an auto in practice and was known as the "automobile doctor." This title has long since disappeared and there are plenty of them now. The auto is a wonderful convenience, if not to say a necessity.

D. W. Hunt.

Los Angeles, Calif.

A THUMB-NAIL SKETCH

It happened in this way. The big show was coming to town and my little twelve-year old son asked me to get up early in the morning and go with him and see the unloading. I promised, for I am very tender of this my youngest, for he is the victim of an infantile paralysis that has left him with one leg shortened and in which most of the extensors are paralyzed. Yet he is an active lad, climbs trees, plays ball and sells papers and is a real boy all over. Pretty as a picture, possessing the singing voice of a seraph and the face of an angel. Of course I would gratify his wish and when the early hours of rising came I was with him, and after a hasty breakfast we went to the fair grounds where we could see every load as it came and note the military precision of the arrangements as the great tents were placed in position; the wonderful six-horse teams, the animals in cages, the camels and elephants; we took it all in. A neighbor left his son with us as he had to go back to his store and the two lads were in for the best time of their lives.

After the tents were up we went to the river near and walked for half a mile along the bank and enjoyed the shade, and the water, and the trees, and the grass. Soon it came on to rain and we sought the shade of the trees but found this an inadequate shelter and came at last to the wagons of some campers. The boys got under one and I was invited to come into the other. Here I found what I at first thought to be Gypsies, two well-to-do farmers who were taking this manner of spending a vacation. We were soon in conversation. They apologized because of their dress but I put this at rest by fervently declaring that I wished I had only a soft hat and a colored shirt and heartily wished that the stiff collar and high hat, were in their places at home, and I was a camper too. We told stories and got well acquainted and although the rain came down for several hours we did not mind it.

When it ceased to rain the little boys came from their place and began playing and later tried the game of "duck on the rock." This consists of placing a small stone on a larger one and the throwing at this until the small stone, the "duck," is knocked off. This had hardly begun till a picee of old red sandstone, striking the dome-shaped top of the larger rock rebounded striking my son in the mouth, cutting both lips and completely knocking out the right, upper central incisor. When I reached him he handed me the tooth and I threw it away and washed up the mouth and we went home. Antiseptic washes were used and the boy kept quiet.

The next day I mentioned the matter to my dentist, Dr. Cottingham, who said "Where is the tooth?" I said, "It is thrown away." He said, "Get it and I

will put it back." I was incredulous but he assured me that it could be done safely. I went to the place and by the help of one of the campers the tooth was recovered. This was taken to the dentist who at once removed the nerve and all of the contents of the tooth cavity and then filled it with gutta percha. The periosteum and all extraneous matter was removed and the tooth was now but a piece of polished bone. The socket in the jaw was now cleansed out, treated antiseptically, and the tooth inserted and held with rubber dam. All went well for twenty-four hours when sepsis developed and I had my hands full for a while. Anticipating this I had given frequent doses of cathartics and had washed the mouth with antiseptics but the blood poison developed rapidly. The tongue was heavily coated, the fever came up rapidly, delirium, and coma vigil, picking at the bed clothing, nose-bleeding, rapid loss of strength.

With elimination as the watchword I began with calomel in one-tenth-grain doses every ten minutes till ten had been taken. Frequent rectal injections of warm water; a dose of saline laxative every hour, plenty of water to quench thirst. This was followed by copious vomiting but the bowels were stubborn. I knew unless the intestinal tract was cleansed and kept so I would lose my boy and so kept at the calomel and laxative until I did get the passage going. It was a fight to maintain it for the tongue would still show the heavy coating and the fever kept up to 103° F. The bowel discharges were offensive in the extreme but I kept up the saline and withheld all food. Gave a sixtieth of nitrate of strychnia every three hours and a teaspoonful of echinacea every three hours. As soon as the bowels began to move as I thought they should, I gave aconitine fourteen granules in twenty-four teaspoonfuls of water every half hour, one teaspoonful of this at a dose. When this was nearly gone I gave intestinal antiseptics and this completed the dosage.

The fever went down and at the end of seventy-two hours we had gone through a great fight with sepsis and saved the boy and the tooth too.

What I wish to emphasize in the administration of potent measures is the order in which they should be given. Begin with the calomel first: Give a tenth every ten minutes. Let the tablet triturate be crushed between the tongue and the roof of the mouth. In this way the absorption is mostly from the buccal surface. Follow with saline laxatives. Repeat this often. If the tongue is heavily coated the repeated doses will quickly fill up the stomach and copious emesis will follow to the advantage of the patient and will assist in clearing the field for further operations. Supplement this with large enemas; keep these up till the bowels are thoroughly cleansed. If one does not do the desired work give another and so repeat until you get results that are satisfactory. As soon as the bowels are cleansed give the aconitine in small and frequently repeated doses. The fault in dosage with this class of remedies is that the space between doses is too great. The patient is liable to die between the acts if doses are spaced three or four hours as in years gone by.

After the febrile action is being modified by the aconitine give the sulphocarbolates and the work of elimination is pretty well covered. The strychnia and echinacea can be given as soon as the aconitine is begun as they will supplement each other. They may be continued as tonics for several days after the acute symptoms are controlled. Calomel, salines, enemas, aconitine, nitrate strychnia, echinacea and sulphocarbolates is the order. The sulphocarbolates are the cupola and not the stone wall of the edifice. The structure is rapidly erected but this manner of construction seems the logical one.

C. S. Cope.

Ionia, Mich.

—:o:—

Good work, Brother, though I confess I would have sacrificed that tooth instanter.

Taking too many chances. Better eliminate the *cause* of sepsis every time—Ed.

APOMORPHINE TO RELIEVE VOMITING

I have had a couple of queer experiences with apomorphine lately. A short time ago I was called to a case of persistent vomiting due to gastric and duodenal irritation, virtually gastroduodenitis. I had tried everything in the way of oral medicine ineffectually. The thought occurred to try apomorphine, so dissolving a few granules in twenty teaspoonfuls of water, I ordered a teaspoonful every half hour. Result: No vomiting after the first dose.

Last week, my little niece, seven years old, was taken with bilious vomiting and a good deal of intestinal tenderness, the vomiting persisting from Friday until Sunday night at varying intervals, notwithstanding every measure adopted to relieve her. The condition was undoubtedly due to some gum she had swallowed, obstruction of the bowel following. She was given high enemas of olive oil and oil by the mouth, in goodly quantities, but would vomit up much of it. There continued incessant "empty retching and straining to vomit." A jar, moving of the bed, the purring of a cat or smell of victuals made her vomit.

I again brought my apomorphine, gr. 1-67, into requisition. Dissolving four pills in twenty teaspoonfuls of water I gave her a teaspoonful every thirty minutes, only for a few doses, because vomiting ceased after the first dose. Monday, her bowels not having moved, I gave her small doses of calomel and again had recourse to oil, followed by cascathartic (Lilly's). Vomiting recurred, but the apomorphine in the same manner quelled it at once. This morning her bowels emptied out completely and she is about well.

The next case of vomiting of pregnancy I get I am going to try apomorphine. To an adult I would dissolve six to eight granules in twenty teaspoonfuls of water and give a teaspoonful as advised and as soon as vomiting is controlled, give every two, three or four hours, in cases of persistent vomiting, such as related. Let the profession try it, and I know they will be pleased with the result.

J. H. Lowrey.

Neola, Iowa.

THE PREVENTION OF PHTHISIS

Not long ago we had the privilege of hearing William Porter's eloquent presentation of the work being done under his direction by the St. Louis organization that is fighting phthisis. The account was most suggestive. The coöperation of the press, the judiciary and the intelligent public has been secured and much progress has been made in educating the public in the knowledge of this malady and the manner of its dissemination.

Listening to the speaker, the thought came to us that in the very strength of his position lay its weakness. Nobody listens attentively to the man who is seeking to prove what nobody denies. The truths of hygiene are so universally admitted as true that all receive them listlessly, admit them hastily, and break them in their daily lives constantly and unconsciously. If only some sturdy kicker arises who denies them strongly, the discussion that follows fixes them in the mind and they are enlivened. It is not a matter for argument, but for such fixation in the subconscious mind that obedience to them will become automatic, that is needed. We take our children and laboriously persist in teaching them to eat with the fork until the time comes when they unconsciously use it, and it would be practically impossible for them to put their knives in their mouths. What we term good manners may be defined as the training that makes the person do the right things unconsciously, automatically, as a matter of course. Conscious or intentional doing of them is a stamp of low breeding.

It is in this manner that the truths of hygiene should be inculcated. The time is in infancy, the place, the home or the school. The child should be taught that

it is wrong to defile the dwelling or the street with the sputa excretion, just as he is taught that it is wrong to defile them with the other excreta from bowels and bladder. Not that the sputa are bacterial, but because they are excretory. The handkerchief must go, and the Japanese paper napkin to receive sputa until they can be burnt, should replace it. Let these few simple truths be drilled into the children in the schools, and the greatest step will have been taken toward the extinction of phthisis, as well as of other maladies disseminated with the sputa.

A good beginning has been made in the matter of scientific supervision of school children, by having a competent specialist examine their eyes. Important as are their eyes, there are other parts of their bodies that may be seen to; and the idea may be extended until our schools are sanatoria indeed, and the pupils leave them graduates in practical, applied hygiene.

NOT A RAINBOW CHASER

I have never been given to chasing after rainbows nor hastily adopting the multitude of chemical products placed upon the market of late years; but beginning with the sulphocarbolates I have gradually added some twenty odd alkaloids or their combinations to my armamentarium with the happiest of results.

Given a selected list of alkaloids and the accurate diagnostician will soon become optimistic in their use. It is scientific medicine in a nutshell. Failure in any given case indicates faulty diagnosis or misapplication of the preparations employed. I would say to such an one, refresh your memory of their physiological action, and results will be different.

I consider Drs. Waugh and Abbott are in internal medicine upon a par with the shining lights of modern surgery. Were their work confined alone to the treatment of the intestinal derangements of infancy and typhoid fever it would be of sufficient value to be handed down to succeeding generations.

The subject of typhoid fever has been so thoroughly discussed, it is beyond word of improvement. The good seed which they have sown has found receptive soil even among the mountains of the Pacific Coast.

I write these lines not for publication, on account of space, but to the editor as a debt of gratitude for benefit which I have received.

Such alterations and additions will be made in the next edition of the U. S. P. regarding the alkaloids as will cause the skeptic to sit up and take notice.

J. C. Twitchell.

Portland, Ore.

—:o:—

Now, who would not appreciate a compliment like that? We surely do.—Ed.

HELP AND INSPIRATION, BOILED DOWN

Satisfy thine own conscience and fear neither the outrages of fortune nor the injuries of enemies.

In beauty there is strength. Let the sick and afflicted be surrounded with it.

A smile, kind words, and a cheery disposition are indispensable therapeutic agents.

The blue ribbon goes to the therapeutist who knows how to cheer up his patient.

After forty we grow thinner or fatter; the former live longer and more happily.

Don't be ashamed to practice massage when indicated, and it often is.

In pneumonia the oiled silk jacket is of decided importance.

Always have ready a pleasant remark when entering the sick room. It quiets fear.

The only excuse for anger in the sick room is to find one's orders neglected or disobeyed.

Par excellant as a digestive and antidyspeptic is a hearty laugh before and after meals.

Don't measure the ocean of wisdom with your tape line of little conception.

In pneumonia, aconitine or veratrine are always indicated at some stage.

Chicken broth is contraindicated in all forms of diarrhea. It adds fuel to the flame

Practice medicine with as much enthusiasm as one would exhibit watching the home team down its rival.

A perfunctory physician is like a 2.30 horse in a 2.10 race. Always behind, often flagging

H. J. Morlan.

Ludlow, Ill.

AN EASY LABOR CASE

I was called to see a patient recently who was anxiously awaiting the arrival of the "stork" and made all arrangements to attend her in her approaching accouchement. From such data as she gave me I concluded that there would be no need of my services for at least a month. She was a multipara, small in stature and gave a history of very difficult previous labors. In about two weeks I was called by telephone and informed that she was in trouble, and responding I found her suffering intensely from what seemed to me false pains, as they bore no resemblance to true labor pains.

Examination revealed an os tightly closed and everything rigid. Abdominal palpation also revealed a head anywhere but where it ought to be. As is my custom in most of these cases I concluded to "watch it out," comforting the patient as much as possible with the idea that I would not leave her, as she was afraid that something was going to happen, though she did not feel as though she was in labor. Now comes the funny part of it. I concluded that I wanted macrotin, hyoscyamine, caulophyllin and bryonin for the conditions that confronted me and so I took three Buckley's uterine tonic pills, braced by two caulophyllin and two hyoscyamine, dissolved all in a little hot water and commenced to administer one-half teaspoonful every fifteen minutes.

After the second dose the patient was more comfortable and in about an hour she suddenly felt as though she was "spreading apart." This feeling was accompanied by no pain of any account. Just as I was about to make an examination to see what the matter was a couple of feet and legs showed up. I rushed for the hot towels and covered these extremities and took a good think as to what I would do with that after-coming head. I did not wait long, for one more pain brought an eight-pound girl into the world, as slick as grease. The other stages progressed normally, and in two weeks the mother was doing her own work as though nothing had happened. Now this is the third time that I have used this combination of active principles to ease off labor pains and relax a rigid os, and it has "made good" in each case. Is it the remedy or simply a coincidence?

Chas. E. Buck.

Boston, Mass.

—:o:—

Is it a coincidence merely? We might be inclined to think so if this were the only report of easy labor following the use of the alkaloids; but there are others—many others. Of course caulophyllin and these other remedies will not remove all obstetrical difficulties; to claim that would be absurd. But when conditions are favorable and the remedies indicated they help mightily.—Ed.

OBSTETRICAL FEES—AND ASEPSIS

A footnote of your journal for December reads: "Why an obstetrical case should not be conducted with the same regard for asepsis as a surgical case is a mystery.—Jackson."

A most potent reason is the miserable fees that the layman considers enough, and too much for even the most elaborate preparation and the very best results possible to obtain. I would rather do a laparotomy any day than attend a case of confinement; the waiting, sometimes for hours, refusal of the patient to permit the use of forceps when they are required, the lack of a nurse, any old scrub of a woman being considered good enough, the practice of confining a

woman on a bed which is unhandy, unsurgical and a dinged nuisance—all conspire to make the attendance on a case of confinement a holy terror for any doctor who cares a dam whether the woman's perineum is tore to shreds or not.

On the correct performance of this ordeal the whole after-life of the average woman of today hinges, and still women practically insist that it be considered by the doctor as such a little thing as to require just about no preparation at all; out in this ungodly country if a doctor even asks to examine the urine before the advent of labor he is considered a sort of jackass. Patients are perfectly willing to pay from one to two hundred dollars to have their appendices removed, but kick like steers on paying more than ten dollars for the successful attendance on a case of labor, no matter how much trouble one meets with.

The whole trouble lies in this: A doctor gets so tired of doing for these pikers that he "don't care whether school keeps or not" and to take the necessary precautions for these ingrates would mean that the added cost would send the physician to the poorhouse in no time. The only solution is for the profession to insist that they be paid a fair fee for taking care of these cases and giving them all the time and care necessary to insure the best of results. A man who can't pay $50.00 for the guarding of his wife through this ordeal and the protecting of the child should have the services given to him free of charge; the man who won't pay this sum for the same services is not fit to have either wife or baby. This is the way I think about this thing, and from all the women shot to h— I find in my practice it is easy to judge what other men think of it.

D.

——, Iowa.

—:o:—

Really, Doctor, you are too much of a pessimist. I don't believe you feel half as badly about the matter as you seem, judging from the extreme vigor of your language. Cheer up! Cheer up! Not but what you have some right to kick. We all have. A physician surely should receive better pay for this class of work and it is one of the things for which CLINICAL MEDICINE always has and always will contend —better pay for the doctor by all means and also better work *by* the doctor.—ED.

SOMETHING GOOD TO KNOW

In my cases of bilious vomiting I have been giving to adults one granule of aconitine, gr. 1-134, dissolved, every fifteen minutes. Usually the first dose stops the vomiting, although I give four doses, which I follow with calomel and podophyllin, gr. 1-6 each for six doses. After four hours comes a full dose of saline laxative which cleans out the bowels and ends the trouble. The aconitine seems to destroy the sensitiveness of stomach when bile enters.

W. MOFFAT.

Grand Rapids, Mich.

—:o:—

Why not? Aconitine has a local anesthetic action and the "clean out" is indicated anyhow.—ED.

ARE WE OVERDOING INTESTINAL ANTISEPSIS?

In the *Journal of the American Medical Association* for November 17, Humiston contributed a note on the use of acetozone in typhoid fever. From a study of ten cases treated with acetozone he finds but one of the manufacturer's claims to be justified—that of greater freedom from abdominal symptoms. In all other respects the report is adverse to acetozone. He winds up by asking: "Are we not overdoing intestinal antisepsis, and are we not simply attempting to let the patient die with a sterile intestine?"

Perusal of his report shows not a word to indicate that the patient's bowels were emptied before seeking to render them aseptic; also that the patients were fed upon milk. It is now, we think, pretty

generally admitted that no antiseptic can be effectively administered unless the bowels are first emptied. Even pure concentrated sulphuric acid would hardly disinfect a solid fecal mass. Milk is not now considered the ideal food in typhoid fever. These objections would practically dispose of any value this report might otherwise have.

We would reply to the writer's questions, therefore, by saying most emphatically, that we *are* overdoing intestinal antisepsis by entrusting the patient to such antisepsis as he describes. In regard to the patient dying with sterile intestine, we would say that that is an impossibility. You cannot make the intestine sterile, try as you will; and the fact that any man could ask such a question shows his utter and complete ignorance of the methods employed by those who use intestinal antiseptics, and of the results which they obtain from these agents.

REPORTS ON HYOSCINE-MORPHINE-CACTIN WANTED

We have received many most favorable reports from those who have used this combination for the production of anesthesia in surgical and obstetrical cases. Thus far not a single fatality has been reported, though the remedy has been used to our knowledge in more than 1,000 cases; and of course in all sorts of conditions, under a wide variety of circumstances, and by many physicians who have had no experience with nor any training whatever in its use.

We want statistics. Will not every physician who has used the Abbott "hyoscine-morphine and cactin compound" send us at once a complete tabulated list of all his cases? Indicate in this list the character of each case; complications; whether complete or partial anesthesia was sought and obtained; fatalities directly traceable to the anesthetic, if any; dangerous symptoms directly attributable to it; your opinion concerning the results.

These reports will be carefully classified, and published month by month, and we want your reports in corresponding continued series as you have further experience. We believe this combination to be not only a safe and satisfactory but in every way a remarkable anesthetic, the results reported to us warranting what may seem to some extravagant praise; but if it has faults or dangers we want to know them. Give us your reports at once.

STRANGULATED INGUINAL HERNIA

1. Patient, boy 10 years old, with strangulated hernia, seen about one and one-half hours after the strangulation had taken place. The boy had had previous attacks but by the use of chloroform had been able to reduce. In this instance manipulations failed to produce any results and the boy was put on hyoscyamine amor., gr. 1-100, every hour while preparing to operate. Four doses in all were given which resulted in complete dilation of the pupils—full physiological effect of the drug. That complete relaxation of all spasmodic conditions were produced, was abundantly proven by what happened when the hernial sac was lifted up, the contents of the hernial sac passing back into the abdominal cavity without any manipulation whatsoever.

2. Patient, man, age 25. Had several previous attacks of strangulated hernia which were reduced with considerable difficulty. I saw case a short time after beginning of the trouble and proceeded to reduce in the usual manner but made a complete failure. I then gave a hypodermic injection of hyoscyamine, gr. 1-100, and repeated same in one hour. One-half hour after the second dose I was able with slight manipulation to reduce.

I believe that each of these cases would have required operative procedure for reduction if I had not used the hyoscyamine, and as I was in the country, miles from skilled help, an operation for reduction might have led to serious results, owing to the time that must have elapsed before skilled help could have been secured. Every physician should be able to use the knife at least enough to be able to cut the con-

stricting ring and allow the contents of the hernial sac to return to the abdominal cavity, but as few country physicians have the skill to do a radical operation for the cure of hernia, it is of considerable importance to be able to handle these emergency cases in a less radical way, leaving the operation for a permanent cure to some more convenient time.

The writer has used hyoscyamine and atropine extensively for spasmodic conditions of all kinds and feels sure that if these two important remedies were carefully studied by each member of the profession, that they would be far more extensively used than at present. A large number of conditions for which morphine is used, should be treated with one or the other of these drugs. Morphine should rarely be used for painful conditions caused by spasms. Either of the above drugs will relax the spasm and produce a cure, avoiding the many objectional effects of morphine.

Again I would admonish you; make a more careful study of the above two drugs as I assure you the time spent will be time well invested.

C. J. Cooney.

Oelwein, Ia.

ELLINGWOOD'S "THERAPEUTIST"

The first number of Ellingwood's new journal is before us, as a slim little monthly, its twenty-four reading pages crowded with live therapeutics, of the sort that we can put to instant use in our practice. As it is, it is a good big dollar's worth, and he promises us an increase in the number of pages with successive issues. It's a good investment.

Farnum's article on Appendicitis is a good, moderate, sensible presentation. East's on Multiple Neuritis ditto, the therapeutics especially. Ellingwood's paper on Aconite we would republish were it quite fair to him—you should send for the journal and read it there. We will content ourselves with this one pregnant sentence: "There are many things concerning the action of this remedy that can be learned only by personal observation. Use this remedy alone, in case after case, observing and noting all of its influences, until perfectly familiar with it." The editorials are vigorous, plain spoken, and with a refreshing absence of abuse of any and everybody. Eclecticism is with Ellingwood a principle that leads to the saving of life, not a war cry.

Send for a sample copy, to No. 103 State St., Chicago.

INTESTINAL ANTISEPTICS IN GOITER

In *The Lancet* for December 8, McCarrison contributes some observations on the use of the intestinal antiseptics in the treatment of goiter. The cases selected were those in which no secondary changes had taken place. Thymol was the agent employed, and its good effects were at once apparent. Recent cases reacted at once, and in some the enlargement disappeared with extraordinary rapidity, the swelling softening during the first week.

Twenty-five cases were cured, the period ranging from seventeen to sixty days. He gave 30 grains of thymol the first morning, a purge at evening, and 10 grains night and morning, in cachets, thereafter. A 30-grain dose was also given twice a week, followed by a purgative. This is continued without intermission till the patient is cured. No ill effects were observed. Some of these cases had existed more than a year. The beneficial effects of betanaphthol and of hydrofluoric acid he attributes to their intestinal antiseptic powers.

Thymol proved useful in all cases where the swelling was progressing. In old cases the gland swelling subsides leaving the adenomatous growths projecting. Insomnia and the sensation of suffocation were relieved, very markedly and rapidly. He ranks the action of thymol here with that of quinine in malarial spleen. His conclusions are:

Goiter is due to an invading organism, infecting the intestine; derived from the soil of infected places; conveyed by drink-

ing water; requires a calcareous soil; transportable by man to suitable new homes; probably emitted with feces; probably has a stage of development outside human bodies; probably destroyed by pure water; requires some moisture; requires a certain temperature; the most susceptible persons suffer first—children; natural immunity develops; workers with soil suffer most; newcomers are quickly affected, in less than a month; is seasonal; disappears when the patient leaves the infected district; is short lived; organically impure water may favor spread; all races suffer; women are more predisposed; fever and emotion predispose; boiling and filtering water do not prevent; domestic animals do not suffer where the reporter resides (Gilgit, India); large communities and groups of houses in infected districts escape; uncertain blood changes occurring suggest parasitic invasions; and finally, the malady is rapidly cured by intestinal antiseptics.

AN EXCELLENT TEXAS OPENING

We have received a communication from a Texas clergyman, asking for a young man, a German, who practises medicine along alkaloidal lines. The physician who has recently left this location was one of "our kind" and the people liked the active-principle methods so well that they hope his successor may be "of the same faith." The location is in a truck-growing, farming and cattle-raising country, only twenty-five miles from Houston, and the nearest competition is seven to nine miles. The people are mostly Germans. There are no bad debts, the physician who is leaving having lost only about $50 in eight years' practice. A physician can make from $1500 to $2000 a year. It looks to us just like *the* place for some bright young man. Write us and we'll furnish the address.

DYSMENORRHEA AND URICACIDEMIA

Having under my care a patient 35 years of age, afflicted with uricacidemia, rheumatic diathesis, I concluded to try calcium carbonate compound (c. p. calcium carbonate, gr. 10; lithium carbobonate, gr. 1; colchicine, gr. 1-500) because of the excellent eliminative powers claimed for it. This patient had a history of dysmenorrhea of eleven years' standing, seldom spending less than one day in bed at each period and usually requiring morphine for relief of pain. I commenced the treatment immediately following a menstrual period and was much pleased with the effects of the remedy upon the rheumatism and much surprised to have her pass through the next period with practically no pain. This led me to suspect a connection between the uricacidemia and the dysmenorrhea. During the next period this patient did not take the remedy with any regularity and as a consequence had some pain at her next menstruation.

During the following period, she took the medicine regularly and as a consequence passed through the following period with no pain whatever. In fact she took a forty mile auto ride the day she should have been in bed according to previous years' experience.

I now have several other patients presenting similar conditions under the same treatment and so far have been well pleased with results. Each of the cases treated has a history of never receiving any particular benefit from any treatment directed toward the dysmenorrhea.

One of the cases now under treatment, age 22, has always had dysmenorrhea and never menstruated oftener than every six weeks. Always had to have morphine. Had been dilated and curetted without effect. Commenced the use of calcalith after a very severe period and in just 26 days she menstruated again and without pain. The following period she had some pain but anodynes were not needed. She has had two periods since practically without pain and the most wonderful thing of all is that they come on at regular times —every twenty-eight days, something that never happened before.

The writer would be pleased to hear through the columns of CLINICAL MEDICINE of the experiences of other doctors with this remedy in like conditions.

A. J. WEAVER.

Muscatine, Ia.

VASCULAR PRESSURE

Coley (*Brit. Med. Jour.*), experimenting with aconitine, found in some cases no special effect on heart force and blood pressure after seven and ten doses, each gr. 1-400, of Merck's potent or crystallized product, though in a number of others the pulse slowed and the vascular pressure fell. The doses were given two hours apart. Gastric irritation was caused. With veratrine the results were quite similar. As this was given in doses of gr. 1-12 each, every two hours, we are not surprised that violent purging was reported. These observations would have been of value if the doses and intervals of administration had been much less. Tartar emetic was given in a case of pleuropneumonia, for ten days, gr. 1-16 each dose, but failed. The violence of the gastric and intestinal irritation rendered it unavailable as a remedy to reduce vascular pressure. With alcohol the results were unsatisfactory, small doses quickening the pulse, sometimes raising blood pressure, at others lowering it.

The most important of these observations is that in cases of high tension with cardiac or renal disease, relaxants such as the nitrites do harm, and contractors like digitalis do good. Here, however, we are met by the question as to whether the depressor digitonin or the tonic group happened to predominate in the specimen of digitalis employed. Until this is determined the practical value of the observation is *nil.*

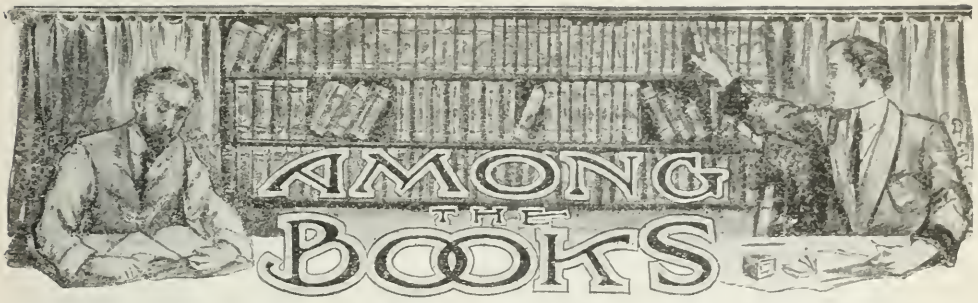
Chloral relaxed vascular pressure in arteriosclerotics with alarming depression. The iodides did not lower tension in healthy persons, and Coley doubts the value of these agents in other than syphilitic cases. Quinine did not affect pressure in moderate doses, but above 30 grains a day caused primary rise followed by relaxation. Salicylic acid caused a primary rise and secondary fall of both. Arsenic in cases with sclerosis not extreme showed a steady fall of pressure with rise in general health. Sublimate slightly increases pressure but calomel lowers it by eliminating toxins that are vasoconstrictors. This and other purgatives are the best remedies for plethoric arteriosclerotics.

In summary the author condemns the iodides, finds arsenic of value in the plethoric type but rather for its effect in improving general health, praises eliminants, finds hypertension sometimes physiologic, and throws aconite and veratrum overboard. This is about the conclusion anybody would reach after employing these agents so unskilfully. Had he given arsenic iodide, aconitine and veratrine in the manner devised by Burggraeve his conclusions would have been different.

Why, Oh, why will not our pharmacologists learn that to obtain exact results exact and dependable remedies must be employed? Because this leads inevitably to the active principles?

SYPHILITIC HYPEREMESIS

Coble, in the *Central States Medical Monitor*, for October 15, reports a case of hyperemesis, syphilitic in origin, with spontaneous recovery, in which exhaustion was pronounced and collapse threatened. Disease did not respond to ordinary remedies and in fact the etiology was somewhat in doubt. The condition of the patient necessitated hypodermic medication and rectal feeding only. During a consultation with Drs. S. E. Earp and C. R. Sowder it was decided that the cause was syphilitic. Gastric lavage was used, the stomach heing washed out with bicarbonate of sodium solution which was siphoned out and two eggs and one ounce whisky given through the tube. The patient at this time seemed to be in a state of collapse. Cardiac stimulants and iodide of potassium in increasing doses were used. The patient gradually improved and made a nice recovery.



CROFTAN'S "CLINICAL THERAPEUTICS"

Clinical Therapeutics, A Handbook on the Special Treatment of Internal Disease; by Alfred C. Croftan, M. D., Professor in the Medical Department, University of Illinois, Chicago. Cleveland Press. 1906. $5.00.

It is reassuring for the cause of medicinal therapeutics to see a man like Prof. Croftan, of thorough German schooling, not only not sunk in the desponding slough of therapeutic nihilism but rising head and shoulders above all that negating pseudo-philosophy, writing a large book on the "Special Treatment of Internal Disease." As indicating his optimistic view of therapy we quote a few words from the preface: "We have erred in the past in giving too much, and we possibly err now in giving too little medicine. With the development of modern pharmacology, and the decline of crude empiricism; with the tendency to give a single drug to meet definite indications; with the revival of esthetic medication and the abandonment of nauseous polypharmacy, drugs are recovering their legitimate place in the therapeutic armamentarium even of the most sceptically inclined."

We take this as an honest confession of faith and, indeed, it is the keynote running through the book. We can, therefore, heartily wish the author and his book abundant success.

For our readers who will procure this latest and masterly work on Clinical (not merely theoretical) Therapeutics, and who may not readily read the French and German, we translate the mottos in these languages with which Croftan pithily graces the first page of his book:

"Therapy is the only reason for the existence of medicine without the aid of which medicine would be but a meditation on Death."—Roger.

"The day of nihilism in clinics, and of pessimism in practice are conquered, and lie far behind us. Internal Clinics stand today under the sign of Therapy."—Von Leyden.

"We must accord to Therapeutics its due dignity and not confound it with Materia Medica; and we must restore the honor due to the science of indications."—Bouchard.

The subjects treated of in this book, in which we have the labors of some of Chicago's eminent specialists, are as follows: Diseases of the Circulatory Apparatus; Diseases of the Blood; Diseases of the Ductless Glands; Diseases of Metabolism; Diseases of the Urinary Apparatus (in these latter two Croftan is an acknowledged master. He is too young yet to be a "past"); Diseases of the Mouth and Upper Air Passages; Diseases of the Bronchi, Lungs and Pleura; Diseases of the Digestive Apparatus (on p. 408, line 6 from top, the misprint of "cardio" for "cardia" is to be noted. The same mistake we see in the Table of Contents also); Diseases of the Liver and Bile Passages; Infectious Diseases. These occupy 603 pages, and the very useful Index occupies 23 pages.

It is not to be inferred from our hearty commendation of the book that we agree with the author in *all* points on therapy, any more than he does with us. Thera-

peutics is at present in the process of restoration, renewal, and reformation; and the difficulty with the best and most sincere minds is as much the unlearning of the old as the learning of the new, the very simplicity of which is to some most non-understandable, therefore unappreciated and hence appalling.

The mechanical outfit of the book, and the marginal indices are very commendable—so, *in toto*, is the book. We want to urge our readers to *buy* it, since it admirably meets the needs of the general practician.

BACON'S "MANUAL OF OTOLOGY"

By Gorham Bacon, A. B. M. D. 4th edition revised and enlarged. Lea Bros. & Co. New York and Philadelphia. 1906. $2.25.

This is no book for self-instruction, nor for that matter is any book on the anatomy and diseases of the ear, but as a manual for a student while attending lectures and clinics of otology, this well-written and felicitously brief and yet clear manual seems to be just the book. And the physician too who has not forgotten what he has learned of otology in school, will find this book very helpful, up to date, and memory refreshing.

CASPAR'S "GENITOURINARY DISEASES"

Genitourinary Diseases, including Functional Sexual Disorders in Man. By Dr. Leopold Caspar, University of Berlin. Translated and edited with additions by Dr. C. W. Bonney, Jefferson Medical College, Philadelphia. P. Blakiston's Son & Co. 1906. $6.00.

This work is the result of the conjoined labors of the original author and his translator, who added his own original matter to this edition. The special usefulness of this work is that it represents the best teaching on the subject as obtained up to date by clinical experience and laboratory research, both in Europe and in this country. The details of examinations with old and modern instruments is admirable and plain. We think the work will prove an invaluable acquisition for both specialist and general practician. The plates and other illustrations are specially to be appreciated.

ATTFIELD'S "CHEMISTRY"

Chemistry, General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopeia. A Manual of the Science of Chemistry and Its Applications to Medicine and Pharmacy. By John Attfield, F. R. S., M. A., Ph. D., F. C. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britian, etc. New (19th) edition, specially revised by the author to accord with the new U. S. Pharmacopeia, edited by Leonard Dobbin, Ph. D., F. I. C., etc., Lecturer of Chemistry in the University of Edinburgh, etc. 12 mo., 760 pages, illustrated. Price, cloth $2.50 net. Lea Brothers & Co., Philadelphia and New York. 1906.

We have many and excellent chemistries, general, medical and combinations of these, in the English language of both British and American print, but we should not be found fault with when we apply to this chemistry an ancient Aramaic saying: "The last, the very last, is the most beloved." And surely the fact of this being the nineteenth edition in England and in America during the years 1867 to 1906 will bear our and the profession's esteem for this book. Were we to have a child to enter a medical school we would tell him to take this manual and study it, whether it is or is not the text-book of his school.

PADDOCK'S "MATERNITAS"

Maternitas by Dr. Charles E. Paddock, is the same book we reviewed in the August CLINIC, 1905, and as it is sent to us again we repeat what we said then. It is an excellently written book to be put into the hands of prospective mothers, telling

them what they ought to but do not know about pregnancy, confinement, the baby, the care of it in health and disease, which knowledge will prevent much care and anxiety. Publishers, Cloyd J. Head & Co. Chicago, 1905. $1.25.

KIEP'S "MATERIA MEDICA AND THERAPEUTICS"

This is one of Lea Bros. & Co.'s Medical Epitome Series, edited by V. C. Pedersen, A. M., M. D. of the N. Y. Polytechnic Medical School.

The series is a time and anxiety saver for the medical examinee. The price of each book of the series is $1.00.

PROGRESSIVE MEDICINE.

The third number of Progressive Medicine for 1906 is a specially comprehensive and interesting number and being so unusually comprehensive it is brief in the details of the objects described. The first article is on Diseases of the Thorax and its viscera (the old venerable name of our youth was "Diseases of the Chest"), to which 81 pages are devoted, and 41 pages of this are devoted to the respiratory organs and here pulmonary tuberculosis takes a large part. The rest is given to the heart and vessels. The next article is on Dermatology and Syphilis, the next on Obstetrics, and the last article is on Disease of the Nervous System. The "treatment" of disease is well attended to, as becomes those who are not nihilo-expectants but plodding therapists, for whom the quarterly is intended.

CONNERS' NOVEL, "JAMES LEE"

James Lee, by Dr. W. F. Conners, Scranton, Pa. Cloth, 8vo., pp. 238. Price, $1.00.

Nobody else has quite the opportunity for studying humanity behind the veil that comes to the physician; and when one of our fraternity perpetrates a novel we always turn to it hopefully to see if the looked-for ideal has appeared. The reason that it has not appeared yet is simple—no man has condescended to describe men and things as he sees them, with the dramatic instinct for the selection of the incidents to be retained and the infinite mass to be excluded. Men who feel the impulse to write will continue to write in the way they think they should, using the words and expressions that seem to be employed by others, and drawing on their memories, under the hallucination that it is their fancies they levy upon, for their incidents. Will not some Smollett arise, who will depict exactly what he sees and yet see things more worthy than the skatologic incidents the old navy surgeon described.

Dr. Conners commences his career in the world of fiction by taking a doctor as his hero—as is natural and proper. The book is full of incidents, the action spirited, and the author has an unusual mastery of dialect. The interest is well sustained, and the characters as a rule well drawn and lifelike, unless it be that of Rose Thorne. While we like to feel that James Lee is a correct picture of the doctor, we would rather believe that no woman can become as devilish as Dr. Conners has made his demoniac heroine. Yet—who can fathom the depths of debasement or the heights of the angelic to which woman—any woman—may not be developed?

Dr. Conners has talent—plenty of it; he has command of dialects, several of them; he has a gift in character construction and develops a plot vividly, with an exuberance of motion and energy that may well tone down with practice into something quieter and still less tame than the commonplace writer.

His mistake has been in taking his characters from the place of their birth and locating them in the great city. We have plenty of books depicting New York life in all its phases, including the lower strata, concerning which the classics of Chanfrau and his successors down to Chimmie Fadden have left little to be added. We hope Dr. Conners will in his next book keep his heroes in the Pennsylvania coal fields,

and give us a true and faithful picture of life in those wonderful crucibles, wherein the raw material from many lands is being made over into the coming American people. Many a story have we heard from physicians practising there, exceeding in interest any that have appeared in print. The huge piles of culm that disfigure the landscape about Dr. Conners' home may appear unsightly to him, and the life of the toilers there prosaic and uneventful in the extreme; yet to 99 per cent of the people they are unfamiliar and arouse an interest not excited by tales of the city.

Meanwhile—get James Lee; it is worth the cost and the time spent in reading it.

The book is sold by the author.

BROWN'S "ECZEMA"

Eczema, A Consideration of its Course, Diagnosis and Treatment, embracing many points of practical importance, many prescriptions and local applications. By L. H. Brown, M. D. Assistant Dermatologist of Philadelphia Hospital. Publishers, P. Blakiston's Son & Co., Philadelphia, 1906, $1.00.

A useful monograph.

PATEE'S "PRACTICAL DIETETICS"

Practical Dietetics with reference to diet in disease, by Alida Frances Patee, is in its third edition in 1905. We gave this excellent book a high encomium in our review of it in the March, 1905, CLINIC, especially on the way the author details the preparation of food for a patient to make it toothsome and appetizing. It is gratifying to see how acceptable the book is in private and hospital practice. It is published by the author, 52 West 39th St., New York City. $1.00.

JONES' "TRI-UNIT PHILOSOPHY"

The Tri-Unit Philosophy, By Dr. Porter Mellen Jones, of Chicago, Ill., is a Treatise Based on the Discovery of Unit Matter. It is a book of 171 pages of close reasoning that controverts accepted theories of matter which do not explain all its phenomena, and attempts to explain them in a new way. We regret that we can give neither location nor price of this thoughtful volume.

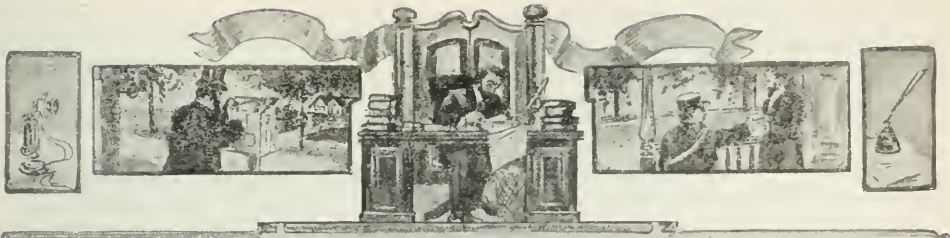
WILEY'S "FOODS AND THEIR ADULTERATIONS"

Timeliness of interest, aside from any other condition, lends especial importance to the announcement of the early publication of Foods and Their Adulterations, by Harvey W. Wiley, M. D., to be immediately followed by a companion volume, Beverages and Their Adulterations. Dr. Wiley is Chief Chemist to the United States Department of Agriculture, at Washington, and his wide researches in the interests of purity in food commodities give anything he might write on the subject an authoritativeness that is unquestioned. The fact that the new National Food and Drug Law became effective January 1st, and that public interest in it is now at white heat, will no doubt result in quite a demand for both volumes.

STOHR'S "HISTOLOGY"

Arranged upon an Embryological Basis by Dr. F. T. Lewis of the Harvard Medical School from the twelfth German edition. By Dr. Ph. Stöhr. Sixth American edition with 450 illustrations. Publishers P. Blakiston's Son & Co. 1906. $3.00.

This book is of importance not only to those physicians who are professional, but even to those to whom medicine is a trade, for embryology is shown to be connected with degeneration of adult tissues, at least theoretically, and is spoken of in books practically. The idea, therefore, upon which this edition of Stöhr is presented is a correct one. The diction of the book is not dogmatic, and what is not known is not claimed to be known, and is so stated. This is a style of textbooks of which one feels to say: "May its tribe be multiplied." Materialistic fanatic dictation is passing; so mote it be.



CONDENSED · QUERIES · ANSWERED

ANSWERS TO QUERIES

Answer to Query 5139.—I want to say a word about Query 5139, of H. A. S., indefinite as it is. I think that No. 1 (calomel) was the cure, though its action was brought by No. 3 (phytolaccin). I do not think that calomel should be given alone, it should always be followed by magnesium sulphate, and here was the mistake of H. A. S. I find that (excepting syphilides) calomel and all mercurials have a storage effect lasting for weeks unless followed by a saline flushing (magnesium sulphate) and the drastic-cathartic action of the phytolaccin brought the stored effect into play. Sodium phosphate has not been of much service in my hands.

J. K. N., Nebraska.

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Answer to Query 5069.—Angleworm Oil, etc. Dr. Neiswanger describes the manner of obtaining this oil with the incident which recalls my own experience, which was somewhat similar. I was about thirteen years old, went to shuck some corn one cold evening and dropped down on my knees onto a rusty nail in a board. Came very near having lockjaw. Sent for a doctor and with physician, poulticing, etc., got easy about daybreak. I crippled around for a few weeks, knee and whole leg swelling all the time, then went to bed where I remained for five months. Could not get attending physician to lance leg which seemed to me to be larger than my body and full of pus, the least jar in crossing floor causing excruciating pain. Finally we succeeded in getting the doctor to consent to have consultation with a surgeon, who came out and lanced leg and great goodness! what relief came with the flow of pus. Well, after a while the leg was drawn up and I could not straighten it out, so "angleworm oil" was rubbed in thoroughly two or three times a day over the leaders and it was not long until I could straighten it. The oil was obtained by filling a large bottle with the angleworms, then putting in water and boiling until a rich oil was thus obtained.

I have a case of gallstones. Young lady twenty-four years old. History dates back to about seven or eight years old. She had a paroxysm two months ago. I was called in, diagnosed gallstones colic and not being able to obtain sodium succinate put her on the sweet oil treatment with a cleaning out and tonic treatment of triple arsenates with nuclein, boldine, chionanthin, calcium sulphide and hyoscyamine. As soon as I received some sodium succinate I put her on one tablet four times a day. She has had a very serious time, but is up now and doing well. This case has passed between 500 and 1000 gallstones from size of small shot to as large as a peach stone.

Answer to Query 5092.—Caulophyllin in my hands has never failed me in rigid os. I carry it in my obstetric satchel and if dilation is slow, I begin and give a No. 1 capsule of quinine and two granules of caulophyllin, repeating the caulophyllin every half hour, usually about two or three doses, and an examination finds os completely dilated and things ready for business. Now, Doctor, you may publish just such of this as you wish. I want you to know that I am a thorough believer in the use of the alkaloids and use them knowing that I will always obtain results.

J. E. M., Texas.

The supposed gallstones were probably fecal concretions and their origin some

sacculation of the intestines. Sometimes these are passed in enormous quantities. "Fecal sand" is often noted in such cases also. Have you ever seen angle-worm oil used *since* the days of your boyhood?—Ed.

QUERIES

Query 5169:—"Rheumatism." Chronic rheumatism of years' standing, in a man 30 years of age. At times he has attacks of rheumatic lumbago to such an extent he can not turn over when down, much less raise up or help himself in any manner. He used to follow blacksmithing and some five years ago went into the sheep raising business.

J. S. M., Idaho.

You will note by the report of pathologist the rather high specific gravity and large amount of solids excreted daily, the low proportion of urea, high of uric and sulphuric acid and the presence of bile and oxalates. Altogether this indicates trouble in the duodenum with some obstruction in the biliary passages. The treatment I would advise is two granules of podophyllotoxin at bedtime with a dose of saline in the morning, enough to empty his bowels; seven granules of boldine daily, and further a granule of salicylic acid to be taken every half hour while awake. I know this is a whole lot of trouble to him but my object is that there shall be constantly present in the stomach a trace at least of this acid, enough to prevent active microbic operations. His diet should be carefully arranged. The lumbago would probably be relieved by the application of very mild faradism with the positive pole or by the use of frictions with a few drops of liniment composed of camphor, aconite, capsicum and chloroform.—Ed.

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Query 5170:—"Abscess of Neck. Edema of Extremities." A lady, 43, had an abscess on her neck. The amount of pus removed was not a little. The opening healed in a short time, but in eight or ten days her feet began to swell. The legs are very firm and swollen. The heart is all right, all organs in good condition.

W. A. S., Pennsylvania.

Examine the urine for you may have nephritis here. The pus should also be examined to see what microörganisms are at work. Keep the bowels clear by a teaspoonful of saline laxative every two hours, with very little water, and give apocynin one to four granules at each dose of salts. Limit the intake of water closely and feed on highly nutritious foods, raw eggs and meat. Continued suppuration calls for saturation with calcium sulphide, and the intestinal disinfectant should be calcium sulphocarbolate, while calcium lactophosphate in full doses would fortify the system and restore strength to the feeble cells. Nuclein solution, gtt. 30 daily.—Ed.

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Query 5171:—"Nuclein in Cancer." In your editorial on "Optimism" in the current number of the Clinic you speak of 1-2 ounce injection of nuclein in the treatment of cancer. I have a case of multiple carcinoma in a woman of 43 who had the right breast removed last year. Now on palpation she seems to have nodules in the various parts of the intestinal tract, one nodule on the esophagus; and she is badly troubled with dropsy, so that it is necessary to aspirate about every two weeks. She has been confined to her bed for the last month, and has a trained nurse in attendance. The heart action is good; appetite is poor and bowels rather constipated, although no formed movements appear. Is there any possibility of helping her by the use of injections of nuclein, and if so how often would you advise using same? What is your idea of the use of trypsin, hypodermically and by the mouth, as mentioned by an English doctor in the August McClure's magazine?

L. R., North Dakota.

The treatment of inoperable cancer by half-ounce injections of nuclein originated with an old physician in this city, who insists that he cures cases by it. Whether he does or not is a question of his veracity At any rate, there is much to be gained from it and nothing to be lost, since the treatment is harmless in any event. We always

advise operation when it is possible, but in a case such as you describe, where operation seems out of the question, we should advise a trial of this remedy. Inject hypodermically one full bottle of nuclein solution once a week. We would be very glad indeed to hear exact results. If useful, the profession cannot afford to lose this method; but if not, we cannot afford to recommend it.

It is too early to give an opinion concerning the value of the trypsin treatment. It deserves a thorough trial, though we fear that the claims made for it in the McClure's article were extravagant. However, we know of one case of cancer of the rectum, which had been operated upon twice by a very prominent surgeon which is responding remarkably to the trypsin treatment.—Ed.

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Query 5172:—"Knee Injury." A lady was thrown from a buggy, bruising her knee badly but no fracture resulting. A month later the knee remains swollen and painful.

H. C. C., Virginia.

Cover the joint with carbenzol and lanolin as strong as can be borne, and immobilize it for a week; then massage and manipulate till well.—Ed.

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Query 5173:—"Climate." Kindly advise where in New Mexico or Arizona is the best climate in the winter season, for a tuberculous patient going from the southern states; and also a sanatorium in such climate under an able specialist on tuberculosis. A suggestion from the Clinic would be much valued, as this is in the time of need.

A. C. B., Oklahoma.

I am not certain who has the Las Vegas Sanitarium at present, but you cannot do better than send your patient to Phoenix, Arizona, with a letter to Dr. John W. Foss. —Ed.

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Query 5174:—"Prostatic Abscess." I send you a sample of urine from a heavy built man of 66 years. He drinks very little liquids and passed but 30 to 35 ounces of urine in 24 hours. He has been suffering for years from an enlarged prostate gland. Recently (in September) while attending a land sale in Utah the gland "closed up" on him and he had to draw his water with a catheter for four days; during these four days he passed a large quantity, he says, of vile-smelling pus and blood, notwithstanding the catheter was passed easily and without pain.

He now complains most of the great difficulty he has in getting the urine to flow at night. He gets up about four times each night to urinate and must walk the floor and painfully strain for five or ten minutes before he can start the dribble (he only dribbles now). During the day he dribbles so easily that he frequently soils his clothing before he can reach the closet.

His physician in Utah (when his gland was closed) prescribed urotropin, hyoscyamus and tr. buchu. This relieved him for a while and he has used it so much that it now does him but little good.

What we wish to know from this analysis is: Is the bladder or kidneys (or both) also becoming diseased? What causes the continual pain in the prostate? Is the semen also wasting (he complains of burning sensation back of the *glans penis* when passing urine)? And last, can the condition be remedied? What would you recommend?

I have gotten all my gray hairs worrying and studying what to do for my big army of hypertrophied prostates, and know nothing yet. Our alkali water makes trouble for the prostate.

R. V. P., Kansas.

The report of our pathologist has gone forward to you and you will note that pus is abundant and a few oxalates exist; beyond this there is really nothing very abnormal, no sign of renal disease. This is probably a prostatic abscess. There is a very good treatment for prostatitis and prostatic hypertrophy but it is essential that we know just what condition exists as there are three varieties of prostatic hypertrophy alone. In a man of this age these cases are serious. We strongly advise you to make a very careful examination, if possible using the cystoscope, then you can tell just what condition you have to deal with. The treatment is then a simple matter, but to attempt treatment while ignorant of the conditions existing is folly, in fact worse than that,

injurious to the patient and doctor alike. Palpate perineum and through rectum. You will find, as a preliminary treatment, arbutin one grain, with a glass of water every three hours, beneficial. Calcium sulphide gr. 1-2 every three hours will also be advantageous. A saline before breakfast will improve elimination. We would not attempt to recommend any local application under the circumstances. If you will give us necessary clinical data we can be useful.—Ed.

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Query 5175.—"Vertigo." Mrs. A. O. A., aged 55, one child 28. Considered herself pregnant again some six years ago. There was the size of the abdomen, which lasted some ten months. She went to bed expecting to be confined, and kept the bed for over a year. There was no issue. A year ago she was taken with headache, especially dizziness, pain over the back and abdomen. In fact the dizziness has been increasing the last ten years, since she first noticed it. When fifteen she had diphtheria, and also earache considerably. Patient eats and sleeps well. Florid of countenance, rather stout. She has been in the habit of drinking much coffee, and there are also symptoms of *cholelithiasis* of a weak character. I tried my best to relieve her condition, and had some results which were only temporary. I recommended her to call on a skilful physician in Minneapolis last fall, and he diagnosed her malady as "gallstones." Her eyes were examined by an eye specialist, with negative results. She was then put on a treatment of Karlsbad sprudel salts for eight weeks. After this treatment she was not a bit improved. The murmur in her head is, lying or standing, the same. "Movements" are felt in the head at times, urination and defecation have been normal, as has been the urine. She eats but little at present, curbing her appetite reasonably. The abdomen feels to her large and hard at times. There is no ascites and no swelling of the ankles. Menopause ten years ago, normal. Feces examined for undigested food—negative results. She did well on "rheumatism treatment" for a time, when the same symptoms recurred in spite of the salicylates, etc. What can you recommend?

L. P. S., Minnesota.

The age, duration of disease and general good condition of the patient cut out malignant and other fatal maladies. The diagnosis of gallstones is probably correct; but this does not tell the whole story—for few such cases complain of vertigo. I am inclined to blame the latter on some obscure condition of the abdomen which leads to dilation of the abdominal vessels, and cerebral anemia. But the earache opens up other possibilities, and altogether the case as presented is beyond our skill in guessing. If a complete investigation by competent diagnosticians does not clear the matter there should be an exploratory abdominal incision.—Ed.

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Query 5176:—"A Troublesome and Peculiar Burn." Mrs. E., aged 26 years, dark hair, complexion fair, habits and physiological functions excellent. Nearly three years ago consulted a specialist for some throat trouble, for the treatment of which the electric cautery was used. Presumably through accident, the cautery touched the dental surface of the lip as well as extending to the mucocutaneous margin, but these burns were practically cured within six weeks or two months, although in the early part she suffered great pain and wedges of oiled gauze or oiled silk had to be used each night to keep the lips from "growing together." About nine months ago consulted me for hyperesthetic condition of the lips with parchment-like crusting which continued to thicken until cast off, leaving a new surface not heavy and strong enough to meet the natural environments of even air, dust being especially irritable. This exfoliating process now passes through the cycle about every five or six days. During these nine months I have used various local applications, all of which have only temporized. This may seem very trivial, but to the patient, who is of a very nervous temperament, it has been a great menace, and to myself very trying. The favor would be inestimable if anybody can put me on the right track for a cure.

D. L. D., Iowa.

Your recent letter received and noted. You certainly have a most difficult and intractable case to handle and the mere

location of the lesion with its constant exposure to moisture, air and tension—to say nothing of contact with food substances—renders satisfactory growth of tissue *almost* impossible. The writer once had a similar case (caused by a hot clay-pipe stem which had been carelessly laid on a stove for a few minutes—and after *months* cured it by applying the following ℞ and protecting affected area with *traumaticin* (Merck). The latter prevents access of saliva and fluids and prevents constant change of tension. The *emol* mentioned is a peculiar substance found in Scotland consisting of steatite, alumina, silica, lime and iron oxide. It is a pink powder. Any of the large importers can supply you. Emol drs. 2; zinc oxide dr. 1; glycerini plumbi subacetatis q. s., lanolin, vaselin aa oz. 1-2. Add sufficient glycerate of lead to powders to make a paste, add the vaselin and lanolin, mix well and apply. The *Medical Annual* for 1898 recommends emol in fissures, etc. *It does the work.* Till you can procure this you might try cerates of hydrastis or calendula (the last is useful often) or glycerin with equal parts of benzoin. Another good formula is: Resorcin dr. 1; creolin gtt. 10; glycerin oz. 1; rose water four ozs. Apply on a piece of lint, fasten ends with traumaticin or collodion. Ichthyol (or carbenzol—one part to three of fluid petrolatum) might be used in same way and we think would stop the unnatural condition set up and promote normal healing. If these fail you, the first named formula will not.—Ed.

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Query 5177.—"How Can I Remove Powder Stains?" The case in question is one in which there is no cicatrization, the skin being set very thickly with powder that has been blown in. I will be glad to have any suggestion you make, but, better than all, an explicit treatment that actually "does the work."

J. A. M., Mississippi.

The removal of powder stains is a tedious process and the patient must be made to understand that patience is necessary. Only a portion of affected area can be worked on at a time. Pick out the grains which are superficial and apply H_2O_2. Over the affected skin apply ethereal tincture of soap till all the grease is removed from pores. Rub well with pledgets of cotton soaked in hot water. Dry the skin and wash well with a solution of equal parts of mercury biniodide and distilled water. The spots will then become red. To these spots apply dilute hydrochloric acid with a cotton-wrapped toothpick; the red will soon disappear and the skin assume normal color. Sometimes it is necessary to use a dermal trephine of fine caliber; this is placed over the speck, pressed firmly and rotated; the little disk of skin is snipped off (with contained powder) and the cavity filled with a paste of tincture of benzoin and boric acid. Healing is prompt and no scar results. Be clean. One part of a good peroxide and three of glycerin may be applied on lint at night and the skin washed well in morning. Repeat till stains disappear. Or use full strength in office, watching for "bubbling" around grains which can then be easily removed with the dermal trephine (pressure). Recently glycerole of papoid has found favor; it is tattooed in, care being taken not to draw too much blood and then lint soaked in the solution is applied. Caroid is said to be even better than papoid. You of course will have to use the method best suited for the condition prevailing.—Ed.

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Query 5178.—"Hodgkin's Disease?" Is there any late treatise on Hodgkin's disease? Patient forty-five years of age; has always had an anemic appearance; of fairly good health until September 1, of this year, when taken with malarial fever. At the same time there was a slight enlargement of the glands of the groins. When first noticed they were about the size of a small bean. These gradually continued to enlarge, the gathering in the right groin developing much faster than the one in the left. About the last of September the abscess in the right groin had developed to the size of an egg. At first the

tumor was as hard as bone, when it began to break down and was lanced. From that time to the present it continues to break down and discharge. It is now about one-fourth the original size. The tumor in the left groin did not develop so rapidly or get as large. Since it was lanced (which was about a month ago) it has discharged a yellowish fluid until within the past three or four days it is discharging pus. In the axillary of each arm there is an enlargement about the size of a grain of wheat. If there are any enlargements of the cervical glands I have failed to detect them. A month prior to confinement to bed the tongue, from the tip back one and a half inches, had a raw beef appearance and was cracked and fissured and had the sensation of being scalded, which condition exists at the present time. Salty and coarse foods increase this unpleasant sensation. There is an uneasy feeling in the pit of stomach. If the liver and spleen are affected it is but slightly. Pulse range, 104 to 107, and temperature 99° to 103.5° F. It has been suggested that the abscesses might be tubercular or from other causes.

H. F. B., Indiana.

It is not usual for the glands to suppurate in pseudoleukemia (Hodgkin's disease). The disorder is also generally seen in younger men, often following adenitis. As we do not yet understand the nature of the disease it is not an easy thing to outline a treatment. Tuberculous adenitis would present the symptoms you describe, the glands fusing and breaking down; here again, however, it is not usual for the inguinal glands to be *first* affected. We would strongly suggest that you have the discharge from the buboes examined microscopically—also scrapings from the tongue. Is syphilis (mixed infection) not possible? Be very certain on this point, Doctor, for the story you tell us points toward specific toxemia. The anemia (and possible gastric catarrh) would simply mean a more favorable field for the disease. Was there an initial lesion? Also, look over your recent cases (especially those of skin disease abscesses, ulcers, etc.) and you may get light upon the origin of the trouble. We can hardly think this is either leukemia *or* pseudoleukemia. Here the cervical glands are almost always affected first (or early) and the anemia is most marked. The spleen can as a rule be felt below the costal margin and more or less fever is present. The pulse is soft, dyspnea (due to anemia and perhaps pressure of enlarged deep glands) troublesome, and diarrhea or epistaxis not rare symptoms. A blood test confirms diagnosis. It is not always easy to differentiate tuberculosis but examination of gland substance and careful review of clinical conditions will settle that point. In pseudoleukemia the *hard* gland is usual (increase of fibrous tissue) but there may be merely abnormal increase of lymph corpuscles, then we have the "soft swelling" sometimes described. The writer does not know of a case in which the inguinal glands first presented enlargement and later suppurated; other well-marked signs of lymphatic involvement (save trifling enlargement of axillary gland) being absent.

It would of course be foolish to institute the accepted treatment for Hodgkin's disease when tuberculosis exists and to start to medicate for the latter disease, when as a matter of fact specific poisoning has occurred would be even worse.

Let us suggest that you examine patient minutely; then send report together with a full and frank statement as to personal history to us. At the same time forward specimen of discharge from the suppurating glands for examination. We can then doubtless help you. You will find that Nothnagel's new work contains an excellent article upon Hodgkin's disease.—Ed.

Query 5179.—"Laxative for Children." I have been helped so many times by writing to you so will describe another case and see if you can give me some advice which will help. Patient is girl five years of age, light complexion, blue eyes, light hair, quite large for age, very active and vigorous, but has obstinate constipation all her life with never any time when

bowels would move without a cathartic or injection. Had been treated by other physicians nearly all the time without any benefit and now I have had her for six months and have not succeeded in doing her any good. I tried the anticonstipation granules according to directions but could never get below two before each meal and they were not always sufficient. Have given "cascara aromatic" and various combinations but always with same result. Cannot discover any fissures or any organic trouble. She has been dieted and now eats considerable fat meat and butter and laxative fruits, but none have any effect on bowels. Had some eczema when I took the case but it disappeared when bowels were made to move freely and kept that way. One uncle and one aunt died of tuberculosis of lungs. One uncle has scrofula and one grandfather died of cancer. The child's father and mother are now in good health but her mother was supposed to be consumptive until about twenty years of age. The child seems to be in perfect health in every other way. Do you think she can be cured?

E. H. J., Kansas.

Take a pound of good prunes and an equal quantity of figs; cover with one quart of water, and add one pound of sugar and eight ounces of Alexandria senna leaves; let the mass simmer for two hours on the back of the stove, stirring occasionally and adding a little water should the evaporation be excessive. If a double vessel is used this does not occur. Strain, using some force to extract all the juice from the solids. You should obtain from a pint to a pint and a half of a thick, sweet syrup. Add two ounces of glycerin to each pint and bottle for use. Children will take this greedily, and one to two teaspoonfuls morning and night will usually relieve the worst case of constipation. At the same time give brucine one granule, juglandin one before meals, and in a case of this particular kind two to three of the "sulphur laxative" after meals.

You will probably find that moderate dilation of the sphincter ani will be of great service in this case, and you will have to regulate the diet, insisting that the child eat whole wheat bread and food leaving plenty of residue. As a starter wash out the bowel thoroughly with soap suds or normal saline solution.—Ed.

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Query 5180.—"Positive Diagnosis Wanted." Mr. D., aged 76, has had unusually good health until a few months ago when symptoms of arteriosclerosis developed and have been getting gradually worse since. Is apparently well during the day but nearly every night about nine o'clock he will begin to get restless and nervous and will walk about the house groaning and complaining of a pain under the sternum, will slap his legs (as feet tingle) and throw his hands, but appears to be perfectly rational all the time; cannot sit still or lie still. Will act like a wild man all night unless given sedatives. When nervous will pass large quantities or urine. Urine is normal except a few granular casts. No coldness of the extremities at any time. Last night I was called to see him and gave him the following: At 9 p. m. one hyoscine-morphine-cactin tablet (hypodermically); at 9:30, 30 grains each chloral and potass. bromide, at 10, another hyoscine-morphine-cactin tablet (hypodermically); at 10:30 repeated the chloral and bromide; he then went to sleep but legs and arms jerked all night. Is slightly irrational this morning. This letter is rather rambling but I would appreciate some help. Shall I give him such huge sedatives or let him get wild? Conditions otherwise are good. No autotoxemia. The sedatives will kill him and he will die without them, I am afraid. This man is intelligent and during the nervous spells will make heroic efforts to hold himself, but will finally have to give up. Have given him all kinds of nerve tonics without effect. Strychnine or glonoin makes him much more nervous.

J. F. S., Nebraska.

This is a most interesting, peculiar and serious case! Unfortunately, Doctor, you have omitted to give us any information relative to the reflexes, heart sounds, pulse rate, respiratory conditions, etc. How about the pupils; are they dilated evenly

and do they respond to light? Any swelling of the ankles or cyanosis during attack? Does the tongue and mouth become dry? On no account give hyoscine and morphine or other powerful depressants but, *pro tem*, give cactin gr. 1-67 every three hours with aspidospermine, gr. 1-67. Morning, noon and night, give two of the dosimetric trinity with a little hot water. Should the night condition present again put the man into a hot bath or sponge him with a hot salt solution followed with an alcohol rub and brisk friction and give very small doses of glonoin. The only safe nerve sedative here would be passiflora, which you may give in full doses, thirty to sixty drops, adding avenin six granules to each dose. We would also suggest one lecithin tablet between meals and a good digestant after eating, say papayotin, charcoal and soda. Please examine and describe this case thoroughly, doctor, then perhaps we can make a clear diagnosis and aid you to institute effective treatment.—Ed.

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Query 5181.—"The Large Dose and Small Granule Question." You recommend calx sulphurata in "six-grain doses" for gonorrheal rheumatism. Yet the drug is not listed in doses larger than 1-6 grain to each pill. That means thirty-six pills a day. Why isn't it put up in one-grain pills?

J. R. P., Minnesota.

The "six-grain dose" of calcium sulphide, recommended in gonorrheal rheumatism, is *pro die* and it is but very rarely that such massive medication is called for. If you will consult the price-list, you will find: "Calcium sulphide, gr. 1-6 granules only; should never be used in tablet form." In former price-lists you would have found the 1-2 grain and even the grain tablets listed but one physician after another found (what we had already discovered) that these were apt to pass through the *primae viae* unchanged. The moment calcium sulphide is subjected to compression (as it must be in a coated pill or tablet) it becomes extremely hard and age increases this adamantine condition, so after a while you might as well pour so many buck shot into a human being as calcium sulphide *tablets* and *pills!* The *granule* is promptly absorbed, generally within ten to fifteen minutes of exhibition, and three 1-6 of a grain granules will, therefore, be of greater service than six one-grain tablets. Do not make any mistake about this, Doctor, because success often hinges upon a clear understanding of the point. Give six 1-6 of a grain granules every two hours (that is easy enough!), and watch the results—even in the most severe cases of gonorrheal rheumatism. In very many cases one-half that quantity will produce "saturation" of your patient in forty-eight hours. —Ed.

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Query 5182.—"Enlarged Prostate; Posterior Urethritis." I have a case of enlarged prostate and ulceration of the prostatic portion of the urethra with hemorrhage. I have used urotropin internally and injections of emulsion of olive oil and iodoform for a long time but without beneficial effect. Can you suggest some alkaloidal preparations to use with hope of better result?

C. H., Minnesota.

You will find the use of a special suppository containing adrenalin chloride, carbenzol and papain, very useful in a case of this kind. We originated this formula some time ago and have since had remarkable success with some serious prostatic cases. Arbutin one grain, hydrastin gr. 1-6, hamamelin gr. 1-2 every four hours with a glass of barley water and a saline each morning will probably prove efficacious under the circumstances. Per urethram you will probably find that a mild unguent containing adrenalin, carbenzol and hydrastis will give you the best results, after irrigating the urethra with a solution of bismuth and hydrastis colorless (Merrill) one-half ounce to four of water. Of course, Doctor, conditions of this kind require very careful medication and one has to be very familar with the conditions present before deciding

upon treatment. If you will examine your patient and report minutely the conditions present and give us a clear idea as to condition of urine and amount of hemorrhage we shall be able to be of greater service to you. If there is much pain give hyoscyamine in small doses with the other medication suggested. Do not let your patient drink coffee, tea or spirits of any kind and make barley water his main beverage.—Ed.

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Query 5183.—"Severe Case of Gastric Ulcer." I have a patient who has been given up to die by other physicians; ulceration of the stomach; is greatly emaciated, does not seem to be far off from the end. I have placed her on triple arsenates with nuclein, calomel to clean her out, bovinine with milk and brandy. What about nuclein and should I give it hypodermically?

M. T. E., Kansas.

We fear that the triple arsenates in a case of extensive ulceration of the stomach will prove irritative. Nuclein, eight to ten minims at a dose, three times per day, dropped under the tongue and allowed to become absorbed from the buccal cavity, will unquestionably be of service. There is no danger in giving nuclein, under ordinarily clean conditions, hypodermically. We should be inclined to wash out the stomach with a warm salt solution and exhibit colorless bismuth and hydrastis (Merrill) one dram in two ounces of water every three hours. Feed per rectum entirely after giving a high enema of normal saline. We give the "standing instructions" you mention relative to care in using nuclein hypodermically in order to avoid possible complications, especially in the hands of the general practician. In all cases of this kind it is best to sterilize the syringe and wash the skin but the cleanly man whose syringe is in good condition knows when these procedures are necessary and when they are not. Carefully wipe the neck of the nuclein bottle and cork with cotton each time it is open to prevent contaminating the contents. Let us once more urge you to stop the triple arsenates and to use lavage freely, being very careful with the tube and to feed per rectum. Try to set up healing of the gastric lesions. It will not do any harm to give sanguiferrin or bovinine, one dram every three or four hours per os. Here is an excellent plan: Take two drams of bovinine and let the patient take it with four ounces of warm water, then have her lie on her stomach, back and each side so as to get the solution in contact with the stomach walls as much as possible, then with a stomach tube pass into the viscus eight ounces of water to which two ounces of a good peroxide of hydrogen has been added at body temperature. Repeat on moving about of the patient, syphon out the froth and fluid, flush with a warm boric acid solution or salt solution, drain the stomach of this and then give the bismuth and hydrastis; one hour later you may give the bovinine or sanguiferrin for nutritive purposes. This washing of the stomach should be done at least once daily and the bovinine or sanguiferrin should be the only nutriment exhibited per os, predigested foods per rectum sustaining the patient.—Ed.

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Query 5184.—"The Way to Exhibit Thiosinamin." In a recent Clinical Medicine (in answer to Query No. 5105) you recommend thiosinamin in deafness due to adhesions of ossicles. I want to give the remedy a trial on a little girl four years old who is deaf, caused by adhesions of ossicles. How should the remedy be used in above case?

J. E. C., Alabama.

Thiosinamin is a peculiar drug, giving excellent results in some cases and failing altogether in others. It is to be used hypodermically or internally, the dose per os being 1-2 grain gradually increased to 1 1-2 grains twice daily in capsules or a diluted alcoholic menstruum. The injection may be parenchymatous or subcutaneous, one to two grains in glycerino-aqueous solution every third day. The writer has had best results from this drug when given first in full doses subcutaneously, then in small doses per os for a week or two, then

a repetition of the subcutaneous injection (full doses). The stomach is apt to be disturbed by thiosinamin, but this can be prevented by exhibiting about half an hour prior to its use a couple of tablets of menthol or a few teaspoonfuls of a solution made by adding two menthol compound tablets to twelve ounces of water. A child four years will, of course, receive half the dose mentioned.—Ed.

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Query 5185.—"What was the Cause of Death?" In following case I want your opinion as to the immediate cause of death, and the cause leading up to it: Male, age 63, white, never had rheumatism, kidney trouble, heart disease of any kind, nor any serious illness in life, was in very good health and able to do active farm-work. September 17, while driving his wagon across the railroad, the hind part of the wagon was struck by a passenger train running at a very high rate of speed, throwing him about 30 feet, striking on smooth ground, producing a fracture of the neck of the femur—an extracapsular fracture with splitting of the great trochanter of the left femur.

We chloroformed him to the point of "surgical anesthesia" and dressed his leg with a long splint and extension by means of a weight. He rallied all right but was sick at stomach occasionally for two or three days. He did not suffer a great deal with the leg, but complained of left breast for four or five days—no cough, or expectoration. Was very sore through stomach and bowels and in fact all over, even to his teeth, from the fall. He got along splendidly apparently, until the fifteenth day after injury, when his left knee became swollen and he suffered a great deal with it and the left foot for thirty-six hours. We had to give him an opiate and then the pain gradually subsided, but the knee remained swollen some. On the night of the ninteenth day after injury, about 11:30 p. m. he called for the bed-pan and his kidneys acted; he was quiet until 2:30 a. m., when he called to his wife that he was smothering and he wanted to be raised up—never had been raised up except his head before. I was called and found him suffering from an extreme oppression of breathing, wild restlessness, and beating about the bed crying for air, deep cyanosis, a fluttering intermittent heart, with pulse almost imperceptible. This condition lasted about fifteen minutes, when a light general convulsion came on, with rigid contraction of the extensor muscles, which lasted for about half a minute. He then sank back on his pillow and did not speak any more (had been perfectly rational up to this time), gradually sinking and was dead in ten or fifteen minutes. He had complained of great weakness all through his confinement.

Now if the immediate cause of death was an embolus where did it stop, and especially where did it start from?

A. R. L., Texas.

After careful consideration we would express the opinion that death was due to embolism. It is quite possible there was coagulation of blood in the heart, or some old vegetation may have been loosened and washed into the current. The swelling of the leg may have been due to embolism or thrombosis. Another member of the staff to whom the query was submitted says: "Probably due to embolism. Sudden death of this kind might be caused by lodgment in pulmonary artery. The source doubtful, though the swelling of the limb suggests formation of venous thrombi, due to injury, one of these later being detached." Any how there certainly would not seem to be any reasonable ground for criticising or blaming the physician as he could not possibly foresee such an occurrence. Neither could he prevent it if he did fear such a catastrophe. The age of the man of course was against him and would render an accident of this kind more than probable. Of course only an autopsy could reveal the *exact* conditions present. It is altogether possible, in fact quite probable, that there was intrathoracic traumatism. The data we have is not quite sufficient to decide positively upon this point; and the continuously growing weakness and oppressed breathing, sense of smothering, etc., may have been evidences of slow but continuous intrathoracic hemorrhage. This is a very interesting case and it is a great pity from the physician's standpoint, that an autopsy was not held.—Ed.

EXOPHTHALMIC GOITER.—Francesco cured two cases of exophthalmic goiter by injecting iodine and ergotin into the thyroid gland.

VALE! "MEDICINE."—No one can lay down the splendid December number of *Medicine* without a sense of regret that it is the last.

SHAKESPEARE.—Again we must call attention to the scholarly series of articles by Wainwright on Shakespeare in Medicine, in the *Dietetic Gazette*.

HEN AND TSETSE FLY.—There are hopes that the hen may exterminate the tsetse fly, whose pupa lives in the soil around the roots of the banana.

SPINAL ANALGESIA.—*Merck's Archives* for December has an important paper on Spinal Analgesia by Dr. Karl Schwarz, which you should not miss.

XANTHIN AND FEVER.—Mandel finds in xanthin a cause of fever, and attributes to salicylic acid the power of dissipating fever from this source. —*Med. Record.*

ATROPINE IN REYNAUD'S DISEASE.—Fossier (*N. O. M. & S. Journal*) reports a case of Reynaud's disease cured by atropine after one toe had been lost.

CANTHARIDES.—Chinese cantharides is not official although it usually contains nearly double the cantharidin found in the more expensive Russian variety.

A CASE OF SPRUE.—Squire, in the *Lancet*, describes a case of sprue that recovered only when placed on a diet of one to three pounds of strawberries daily.

GALLSTONES; TURN 'EM OUT.—Speaking of gallstones Cartledge proposes to turn out of the profession any member who cures people with drugs.—*Ky. Med. Jour.*

GOOD FOR THE SOUL.—It is good for the soul of the galenic user to read the discussions in drug journals criticising the pharmacopeial methods of assay for standardizing.

A SPUTA CUP.—Dr. E. A. Tracy highly commends the Hygiene Sputa Cup invented by a hospital nurse; and what Tracy commends is worth investigating, always.

FLATUS IN PERITONITIS.—In his article on acute septic peritonitis in the *B. M. J.* Bond repeatedly testifies to his dread of flatus as a peril —good indication for antiseptics?

HOW TO MAKE A GOOD DOCTOR.—Reading makes a full man, conversation a ready man, and writing an exact man, said Bacon. And active principles make a good doctor.

STANDARDIZATION.—Hankey calls attention to a source of fallacy in making assays to standardize plant preparations, in the varying degree to which specimens have been dried.

VARIATION OF BELLADONNA.—Ten samples of belladonna leaves varied in alkaloidal content between .230 and .516 per cent, no two being equally strong.—Hankey, *Amer. Druggist.*

HYOSCINE AND MENTAL IMPAIRMENT.—The prolonged use of hyoscine may be responsible for the mental impairment often following the "gold cure" for alcoholism.—H. Richardson.

SEPTIC PERITONITIS.—In septic peritonitis morphine causes an illusory betterment while inhibiting leucocytosis and wasting precious time. The patient's primary chance of recovery lies in active and efficient peritoneal reaction and vigorous leucocytosis.—Bond, *B. M. J.*

Hyperchlorhydria.—Bebizzi cured cases with atropine, except when neurasthenia was present. Here he should have added neuro-lecithin.

Contraindications to Nuclein.—Vaughan says that quinine, the coal-tar antipyretics and atropine are contraindicated while nuclein is being taken.

Cold Tea for Canteen.—Surgeon McNaught recommends cold tea for the soldier's canteen, as he finds typhoid bacilli die in that beverage. —*Med. Record.*

Ejaculatio Praecox.—Robinson (*J. A. M. A.*) advises strychnine in doses up to gr. 1-109 and hydrastine gr. 1-10, deposited in the prostatic urethra, once or twice a week.

Cocaine and Internal Sensations.—Kast and Meltzer find that cocaine abolishes the sensation of internal organs, which without it suffer during surgical interference.—*Med. Record.*

Vasomotors and Hemorrhage.—Plenty of people are discovering that vasomotor tensors increase pulmonary hemorrhages, and in time one of them will discover atropine cures them.

Feces a Culture Medium.—The retained fecal fluid in all forms of intestinal obstruction provides a very favorable nidus for the culture of organisms of exalted virulence.—Bond, *B. M. J.*

Dionin vs. Codeine.—Vallerani finds that dionin surpasses codeine as a cough sedative, and as a hypnotic and analgesic in all painful forms of asthma and agrypnia.—*Merck's Archives.*

Death from Chloroform.—Carmichael and Beattie report a death from chloroform anesthesia, occurring 42 hours after the operation. The symptoms were thirst and vomiting, of coffee-ground material.

Ipecac Root.—At least 75 per cent of the samples of ipecac root examined contained less than the required 2 per cent of alkaloids.—Hankey, *Am. Drug.* What becomes of the below grade root? Good enough for galenics?

An Attack on Frauds.—There is nothing on invective more terrific than the onslaught in the *Critic and Guide* of December entitled "The Most Infamous Frauds in the United States." An amazing state of affairs is disclosed.

Rhinitis.—Fischer (*N. Y. M. J.*) traces rhinitis of children to autotoxemia from fecal absorption in an interesting paper. In an article more germane to the pessimistic spirit ruling this publication Jacobson questions the efficacy of quinine in malaria!

Matches.—Dr. Whalen of the Chicago Health Department recommends the use of the double-dipped or sulphur-tipped match. The cost is the same as the ordinary parlor match, but the former does not snap, pop or fly, and is much safer than the old match.

Quacks and Suicide.—The Norwalk, Ohio, *Reflector* of Oct. 2, says that a tailor in Sandusky committed suicide, on account of the terror excited by a quack doctor, who had told him he was suffering with cancer. It seems unfortunate that the law cannot reach such cases.

Pruritus Ani.—Hill (*Med. Record*) discusses the causes of this malady, enumerating superficial lesions, catarrhs, external hemorrhoids, "pockets," and polypoid protrusions. He has not "caught on" to the most common cause, an irritating discharge from retained fecal masses.

Malaria.—Goodman reports a chronic malarial case with the enlargement of the spleen. After a dose of quinine gr. 9 the temperature rose over four degrees. When ergotin and black pepper were administered this phenomenon ceased to occur, and then quinine cured the case.—*Med. Record.*

Middle-Ear Inflammation.—*Merck's Archives* for December has a fine paper by L. S. Somers on the Treatment of Acute Inflammation of the Middle Ear. This is something every practician is interested in. The number is well worth sending for, to Merck & Co., University Place, New York.

"The Philistine" and Vaccination.—Whatever Mr. Elbert Hubbard may or may not know, he demonstrates beyond the shadow of a peradventure that he knows nothing of vaccination and very little if anything about medicine. The *St. Louis Medical Review* gives an admirable dissection of the *Philistine* in the issues of Dec. 22 and 29.

Discouraging?—It is rather discouraging to write many items of value to the profession in the way of bettering the means of alleviating suffering and preserving life, and have our contemporaries quote only some trade item from the publisher's department, or discuss a petty controversial point—this last applies to the drug journals.

Doctors and Divorce.—Apropos of a recent New York divorce case, one woman interviewed about it is reported as having said: "Any woman would leave an ordinary doctor to become the wife of a man who would give her the spending of $30,000 to $50,000 a year." But each one of us is just conceited enough to believe he knows of one doctor's wife who wouldn't.

Septic Peritonitis.—In the very earliest stage of acute septic peritonitis morphine may usefully restrain peristalsis and limit the spread of the disease. In acute septic peritonitis the use of turpentine or purgative enemas may be commenced early and repeated throughout the disease. Calomel, gr. 10 to 15, followed by saline laxatives in the early stages; salivation is curiously absent.—Bond, *B. M. J.*

American Physio-Therapeutic Association.—Physicians who are interested in physical methods of treating disease, such as electrotherapy, phototherapy, mechanotherapy, hydrotherapy, suggestion and dietetics, should join the American Physio-therapeutic Association of which Dr. H. H. Roberts, Lexington, Ky., is president and Dr. Otto Juettner of Cincinnati is secretary. Write to Dr. Juettner and he will tell you all about it.

Calcium in Spasms.—Silvestre suggests that eclampsia, tetany and other spasms are due to deficiency of calcium, which may be correct. In various psychopathies with much mental work the elimination of calcium is increased. An excess of calcium causes cerebral depression. The brains of children with tetany are deficient in calcium. Phosphorus and lecithin stimulate the nervous system, possibly by favoring the assimilation of calcium.

Diagnosis, Prognosis and Treatment.—A careful and complete diagnosis and a sound prognosis can not be made unless the investigator can cover intelligently the whole field of physiologic function. The physician is no longer justified in the adoption of any course of medicinal treatment that does not rest upon a clear understanding of the physiologic action of drugs and of the physiologic end to be attained by their administration.—Beard, *St. Paul Med. Jour.*

Disinfection vs. Vaccination.—Most persons read the widely flung announcement that Cleveland some years ago had deserted vaccination for disinfection in seeking to prevent smallpox, with success. Comparatively few are aware that the experiment resulted in total failure, and that the following year Cleveland had more smallpox than any other two cities in the United States, and more deaths from this disease in three months than Chicago, with seven times the population, had had in five years. Cleveland wisely returned to vaccination.

Mushrooms.—*The Therapeutic Gazette*, of Dec. 15, contains an article on mushrooms, notable for the ignorance displayed. Among other gems it speaks of the puffballs as "intensely poisonous." There are no poisonous puffballs, which are among the most delicious and wholesome of these vegetables. Green Russula is also described as "wholesome." Do not presume on this assertion. The only safe way to select edible mushrooms is to classify each variety, and ascertain its true title, and then refer to works on the fungi as to its properties.

Hemorrhage in Typhoid.—In the *Medical Council* for November last, Prof. S. E. Earp contributes a small but valuable chapter on hemorrhage in typhoid fever. He recommends morphine, adrenalin and ergot subcutaneoulsy, stops the baths and gives the sulphocarbolate of zinc or other intestinal antiseptics by the mouth. He adds calcium chloride to the water used twice a day by enema, employing also turpentine or strychnine when desirable. He says: "I believe that intestinal antiseptics are advisable even when all evidence of hemorrhage has disappeared.

Alcohol in Medicine.—Meltzer says: May we get rid of the misuse of alcohol in health and the opposition to its use in disease. Very pretty indeed. But nobody seeks to deny to alcohol its true value in the treatment of disease. All we ask is that it shall not be used when there is any better means at hand. But—be careful how you admit this proposition, for we defy anybody and everybody to show a solitary instance where alcohol is better than any other drug in the treatment of any disease. Alcohol is useful in many cases, and excepting morphine there is no drug in the materia medica that will do as

many things as well as alcohol; but with it as with morphine there is not a solitary use to which either can be put for which there is not a better remedy.

Purification of Sewage.—Those interested in the question of sewage purification and disposition (and what physician is not) should send to the United States Geological Survey and secure the Water Supply and Irrigation Paper No. 185, which contains valuable investigations made at the Sanitary Research Library under the direction of Prof. Wm. T. Sedgwick. These studies apply not only to the sewage question as it is found in large cities but is of practical importance to all communities, however small, which have to deal with any phase of this problem.

Influenza.—Nammack (*Med. Record*) says the analgesic antipyretics caused more deaths than the disease. He prefers Dover's or codeine when pain demands relief. He gives ammonium carbonate and salicylate with coca wine, for depression and respiratory catarrh; and if something stronger is needed employs strychnine, caffeine or camphor hypodermically. Bronchitis calls for its usual treatment, excluding all depressants. The heart may demand nux, belladonna and digitalis; or strophanthus, belladonna and cactus. The paper, though brief, is well worth study.

Bucolic Surgery.—*Northwest Medicine* tells of a Cesarean section performed in Oregon last July, by a vicious heifer, whose horns, penetrating the abdomen of a woman, completed the operation successfully, although the mother died of the hemorrhage. This reminds us of a case occurring many years ago, when a bull attacked an elderly man in the pasture, neatly operating upon him for cataract, removing the lens as skilfully as an oculist could have done; in fact it it seemed that only the arrival of interference prevented the bull completing the operation by the application of a compress and bandage.

Cactus.—*Merck's Report* for December contains a paper on cactus, by Prof. L. E. Sayre. He speaks of the great difficulty in obtaining a supply of reliable material. (If this distinguished teacher experiences such difficulty, what is probably the status of the market supply?) No evidence of the presence of alkaloid in it was obtained. Dr. Sayre objects to the admission of this drug to the Pharmacopeia, on the ground of the uncertain supply of reliable material, the difficulty of identification, and the rapid deterioration of the fresh drug; all of which we take to be excellent reasons for preferring cactin to the tinctures.

Patent Medicines.—The *Bulletin of the Minnesota Dairy & Food Commission* affords some exceedingly valuable ammunition for use in the fight against patent medicines. One of them describes Kennedy's honey and tar as containing alcohol, chloroform, salicylic acid, codeine and croton oil, but neither honey nor tar. King's new discovery for consumption contains chloroform and morphine, as does Chamberlin's cholera remedy. In peruna, however, no drug is mentioned, the manufacturers evidently thinking low-grade whisky is bad enough without the addition of anything else. The whole *Bulletin* is well worth study and quotation.

As They Do It In Vienna.—A visitor at a recent medical gathering when the alkaloids came up for discussion remarked tolerantly that he had "seen the infusions and decoctions of vegetable drugs prescribed in Vienna with good effect!" We cheerfully admit that the chipped flint implement of paleolithic times was in truth an axe, and that from it some of the uses of an axe could still be obtained; but we venture to suggest that there are possibilities in the modern axe of tempered steel that would not be attempted by the man who had never utilized anything of the sort except the flint aforesaid. But that the paleolithic man could be convinced of this without actual trial of the steel axe, or that he could be induced to make such a trial, is another matter.

Strophanthus vs. Digitalis.—Earp, in the *Central States Medical Monitor*, says that strophanthus is more prompt in action than digitalis, but less powerful. The former is an irritant to mucous membranes, oftentimes acts as a cathartic, but is a more potent diuretic than digitalis; on the whole, however, it ranks second to digitalis. The tincture is the best; dose, 5 minims. It is so long since we used those antiquated preparations that we do not know; but if Earp said it, it must be true. This does not, however, apply to the water-soluble digitalin of the Abbott preparation, whose effects are manifested within a few minutes of administration. Strophanthin can only act as a diuretic when the tension of the arterial walls is not so low that the force of the heart beats is expended in dilating them. It cannot equal digitalin on the one hand, or digitonin on the the other.

Croup and Typhoid.—*The Medical Mirror*, for October has an article entitled "Croup, Tonsillitis and Diphtheria Successfully Treated by Electricity After Medicine Had Failed." The electrical crank never getting a case until medicine has failed, does not know how very rare it is for medicine to fail. Whether any man possibly *could* fail in the treatment of the three diseases mentioned, if he knew how to use calx iodata and sulphurata, would be a very difficult question to answer in any but the negative.

In the same number L. Thompson Clason has one of his witty papers, on typhoid fever. This is one of the very few men who can write an interesting letter, because he does not pose, but simply writes as he would talk to a knot of brother practicians, crowded into the anteroom of a lodge.

Veratrine.—In *Merck's Report* for December, Dr. Naylor discusses veratrine with the singular prejudice against this alkaloid shown by so many writers. He says the veratrine of commerce is rarely of English make, and the Pharmacopeia process too antiquated and destructive of alkaloids to command acceptance. He concludes that its retention in the Pharmacopeia is of doubtful value, since its physiologic action greatly resembles aconitine, and an ointment of the latter is official. If it should be retained, however, he recommends that the pure alkaloid be made official; and in this at least we heartily agree with him. "It is to laugh" that a man should attempt to discuss so important an alkaloid, who is nevertheless too ignorant of his subject to know that veratrine is extensively used for internal administration.

Good State Journal.—We have no special penchant for state medical journals. If they are good enough to deserve to live, we approve of them; if they are not, we pass them by; in both cases exactly as we would any other medical journal. Consequently we did not extend an enthusiastic greeting to the *West Virginia Medical Journal*, but waited to see if it would deserve a welcome. But the third number of this journal, now before us, shows a progressive excellence which leads us to believe that American medical journalists have received a decided acquisition to their membership. This, notwithstanding the fact that one correspondent in "Post-Graduate Notes from Chicago," says: "So far as I saw, there is no medical treatment for appendicitis in Chicago." It is to be regretted that Dr. Covert's view did not reach the uburbs.

Study Physical Therapy.—While we have advocated with some vehemence, possibly, the wisdom of employing active principles in therapeutics, we have no less vehemently repudiated the idea that we advocated these as an exclusive therapeutic method. Instead of this we have studiously avoided the fault we find in others, and have kept ourselves on the broad platform of using anything and everything that is best for our patients' welfare. Accordingly we extend a more than ordinarily warm greeting to this work of Dr. Otto Juettner's on Physicial Therapy, and suggest that it is just the book to be placed on the physician's shelves side by side with our Text-Book of Alkaloidal Therapeutics. No practising physician can afford to neglect either scientific drug-therapeutics or the indirect therapeutic methods that have been so widely advocated in recent years. These two books cover the ground of whole libraries.

Death Following Antitoxin.—In the *Chicago Clinic and Pure Water Journal* is described a case of death following and evidently due to antitoxin injection. The case was reported by Dr. Hendricks, of Bardolph, Ill., and only 1000 units of a reliable manufacture were employed. Death resulted in 45 minutes, the child becoming livid, lips and nails blue, lips and eyelids swollen, eyes half open, pupils equally dilated, conjunctivae injected, the child unconscious. The article also quotes a case in the practice of Dr. Knapp, of Brimfield, Ill., who died of convulsions two days after an injection of 8000 units. Possibly, probably, both deaths were due to ingredients of the antitoxin that were unnecessary contaminations of the curative element, and would have been gotten rid of if antitoxin were reduced to the condition of a pure active principle. The chemists will do this when the profession demand it. In the mean time a most valuable remedy runs the risk of being discredited by the same imperfection that has hampered so many others, the uncertainty of its composition and occasional undesirable effects following the use of preparations of doubtful properties.

"Black Quinine?"—We have before us an advertisement of "black quinine." The sellers say that just as white flour is less nutritious than that made from the whole wheat, so quinine loses when presented as a white substance. They offer a "black quinine," stating that it contains all the active principles in "quinine bark," further affirming that it contains more tonic and strengthening properties than white quinine, and doesn't

cause nervousness or unpleasant head symptoms like the ordinary white quinine, besides being better for malaria. We do not doubt that black quinine may contain all the active principles in cinchona, and a good deal of dirt besides. As such, we look to see this black quinine receive the enthusiastic support of that section of the medical profession which violently opposes the active-principle movement. In fact, we do not see how they can logically refuse to endorse this preparation, which is probably an extract of cinchona. No active principle of cinchona is of any other color than white; the blackness is due purely and wholly to dirt, and there must even be a good deal of dirt left in to produce blackness.

Alcoholic and Other "Bracers."—In the *Medical Council* Benj. Edson tells of two cases of strychnine poisoning caused by "iron, quinine and strychnine," taken as a bracer. This emphasizes the caution we have previously given as to the prescription of these enticing alcoholic preparations. An occasional poisoning is not so objectionable, as it serves to emphasize the caution against incautious lay meddling with matters medical; but the greater danger of arousing a domant alcoholic appetite is what we should guard against. It is much to be desired, that in their prescribing physicians should limit themselves to exactly the medical agents they desire their patients to have, and not needlessly complicate matters by mixing in others as potent as alcohol, for secondary purposes such as solution, keeping qualities or flavor. The use of single active principles, prescribed with directness of purpose, dispensed in simple watery solution at the bedside, without extraneous matter, seems to be pretty close to the ideal.

Disinfection.—The Illinois State Board of Health has retested the formaldehyde-permanganate method of disinfection, and shows that the unfavorable results reported by Surgeon McClintic were due to his use of much smaller quantities than those found necessary by the State Board. Repeated and conclusive experiments show that this method is effective in low temperatures and with all degress of humidity if the proper methods and quantities are employed. The effectiveness of disinfection by fumigation depends on the perfection with which the detail is elaborated and carried out; and however simple this may seem *a priori*, when put into practice it will be found anything but easy or simple. The writer has elsewhere told how an apparently ideal disinfection failed because the mother who had nursed a child sick with scarlatina neglected to disinfect her hair. Cyrus Edson informed the writer that on one occasion a blanket that had been hanging in the open air was folded and placed in a fumigating oven where it was exposed to a high temperature for several hours, after which, on being unfolded a mass of snow and ice was found in the center of the roll. Obviously, the hot disinfectant gas could not have penetrated.

Diarrhea and Cholera Morbus.—*Merck's Archives*, for October, is especially rich in practical therapeutic points. Radin treats of acute diarrheas in children. His dietary directions are excellent. He insists on beginning by thoroughly evacuating the alimentary canal; and follows with bismuth, which he says is not effective unless by the formation of sulphide it blackens the stools. With this he combines an astringent antiseptic, such as salol or resorcin. He doubts whether intestinal antiseptics deserve their name, but nevertheless finds them useful. However, since he limits the dose of zinc sulphocarbolate to gr. 1-4 five times daily, we may agree with his doubt as to whether such feeble doses should be really antiseptic. If this salt is chemically pure, children in the second summer can easily take without any irritation two grains every two hours. French contributes three valuable clinical observations: One is the treatment of cholera morbus by hypodermic injections of morphine gr. 1-4 and atropine gr. 1-150; the second is the antagonism of strychnine and alcohol. As in other instances strychnine does the work while the credit may be given to some other agent given simultaneously, but it really may be a hindrance. When will the profession learn that one drug is enough if it be the right one, and the addition of any more simply confuses matters. His third fact is the abortion of pneumonia by early and appropriate treatment, French's being that usually known as the alkaloidal method.

Hypnotics in Phthisis.—Sabourin finds consumptives have higher fever after taking hypnotics. Sure; the opium stops peristalsis and fecal absorption increases. Keep a' climbin', brother, and in time you may find that clearing the bowels and disinfecting them makes a wonderful difference with your Phthisis.

Patent Medicines.—*Good Health* for December has some excellent editorial matter on the patent-medicine question of the sort which cannot help but do good if it goes to the right parties.

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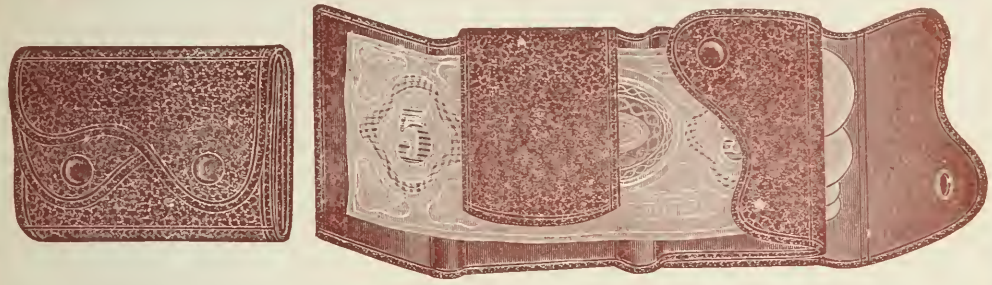

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